



United States  
Department of  
Agriculture

Forest  
Service

**Northern  
Region**

March 2014



# **East Reservoir Draft Record of Decision**

**Kootenai National Forest  
Libby Ranger District  
Lincoln County, Montana**

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# **EAST RESERVOIR PROJECT**

## **DRAFT RECORD OF DECISION**

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## **Draft Record of Decision**

### **I. DECISION SUMMARY**

After careful consideration of the potential impacts of the alternatives analyzed and documented in the East Reservoir Draft Environmental Impact Statement (DEIS) (issued in June 2013), and public comments on this project, I have decided to implement management actions as described below for Alternative 2 with Modifications.

My decision does not include activities analyzed by the East Reservoir EIS on lands administered by the Army Corps of Engineers. The Army Corps of Engineers will issue their own decision regarding lands within their jurisdiction that were analyzed for the East Reservoir EIS.

Project activities will occur within the 92,407 acre Cripple Planning Subunit (Cripple PSU) approximately 15 miles east of Libby, Montana.

With this Record of Decision (ROD) I am authorizing the following activities to meet the purpose and need for action described in Section V:

- Timber harvest and associated fuel treatment on 8,845 acres, including intermediate harvest on approximately 5,387 acres and regeneration harvest on approximately 3,458 acres to re-establish, restore and retain landscapes that are more resistant and resilient to disturbance and uncertain environmental conditions such as climate change; create a heterogeneous landscape that provides a variety of habitats to sustain populations of terrestrial and aquatic species; reduce hazardous fuels adjacent to private property and across the landscape while re-introducing fire to the ecosystem and contribute timber to the local and regional economy. This harvest is dispersed over the 92,407 acre project area. These activities will contribute approximately 78,761 hundred cubic feet (CCF) of timber products to the economy. Approximately 91% of this harvest will be accomplished with ground-based systems and 9% by skyline yarding. An estimated 37% (approx. 3,310 acres) of the harvest will be restricted to winter harvest to protect resources.
- Precommercial thinning on approximately 5,775 acres to improve growing conditions and restore shade-intolerant species in managed sapling-sized stands.
- Planting of conifer seedlings will occur on approximately 3,348 acres in this decision. This planting will supplement the natural reforestation anticipated and restore tree species that are presently not sustainable due to inadequate seed source in the residual or adjacent stands.
- Prescribed fire will be used to reduce hazardous fuel loadings, create fuel breaks along ridge lines and restore natural fire regimes. Prescribed fire treatments will be completed on 4,149 acres and will be spaced over time to avoid displacing big game from the entire burn area at any given time.
- Approximately 10,049 acres of burning and/or slashing (Appendix 1) over the next ten years to enhance wildlife habitat (bighorn sheep escape habitat and foraging), increase ungulate browse and to reduce hazardous fuels.
- Best Management Practice (BMP) and road maintenance work will be applied to approximately 176.40 miles of haul roads.
- New road construction totaling approximately 9 miles of new permanent roads (Appendix 1) in order to access harvest units, fuels units and allow the DNRC access to their lands.
- Temporary road construction totaling approximately 4.26 miles (Appendix 1) in order to accomplish harvest activities. These roads will be obliterated following harvest to reduce erosion risk.
- A change to yearlong, open access on approximately 1.79 miles of roads (Appendix 1) that currently only provide seasonal access to existing dispersed campsites along the Koocanusa Reservoir.
- Access changes from motorized to non-motorized on five trails (279, 280, 420, 426, 500) for a total of approx. 27 miles (Appendix 1). Trails 281 and 420 will remain motorized, creating a loop which includes open NFS roads (roads 4904 and 4925).
- Watershed rehabilitation will include road decommissioning and intermittent stored service (storage) work. Decommissioning work is authorized on 5.93 miles of existing road. Approximately 0.51 miles of these roads are open yearlong to traffic while the rest are currently restricted yearlong to traffic (Appendix 1). Road storage will occur on 17 road segments totaling approximately 16 miles. Two roads (#5060, 5167) are currently open (0.65 miles), the rest of the roads are currently seasonally closed but open to snow vehicles. These roads will remain open to snow vehicles (Appendix 1).
- Undetermined roads occur in the East Reservoir area. These are roads that exist on the ground but are not officially part of the NF System. Approximately 13 miles of these undetermined roads will be added to the National Forest System. These roads currently access dispersed camping sites, are needed to access harvest units and needed for existing or future land management. An additional 6.24 miles of undetermined roads that are not needed now or in the future will be decommissioned.
- The Forest Service and the Montana State Department of Natural Resources and Conservation (DNRC) have proposed to cost-share in several roads in the analysis area for access purposes (approx. 30 miles, Table 7). Of the



approximately 30 miles, new road construction will be authorized for 0.20 miles (N39, Appendix 1).

- Access to the recreation sites on the south side of the mouth of Fivemile Creek and in the Yarnell area will be improved. New road construction and improvement of existing access will occur to provide more opportunities for dispersed campsites. Improvements will be made while maintaining the character of the sites.
- A new non-motorized trail within the East Reservoir analysis area will be created. The trail is located south of the mouth of Cripple Horse Creek between Lake Koocanusa and Montana State Highway 37 and will be a 2.75 mile loop. The trail will be managed for non-motorized travel (horse, bicycle, foot) yearlong with trailhead parking to accommodate four to six vehicles.
- Design features and mitigation measures to maintain and protect resource values (see Appendix 2).

See draft ROD, Section VIII and the appendices for a more detailed description of the activities authorized with this decision.

### **Alternative 2 with Modifications**

My decision is to implement Alternative 2 with some activities analyzed under Alternative 3 in order to respond to public concerns regarding loss of access by motorized vehicles and snowmobiles. I have determined that the changes to Alternative 2 are minor, and it is sufficient and appropriate to file the DEIS (June 2013) with the FEIS (February 2014) as the final documentation for this project (40 CFR 1503.4(c)).

The design features incorporated from Alternative 3 discussed in the Draft EIS are as follows

- I have included Unit F19 which is adjacent to state land on the Koocanusa Reservoir near the mouth of Cripple Horse Creek. This unit was added during field reconnaissance and includes slashing and burning to address excess fuels.
- Road #4904, in the Boundary Mountain area will be changed from restricted yearlong to restricted seasonally (10/15 – 06/30) to give additional access to the trailhead for Trail #425.
- The five motorized trails (279, 280, 420, 426, 500) will change from motorized to non-motorized for a total of about 27 miles to improve big game security. Trails 281 and 420 will remain as motorized trails creating a loop which includes open NFS roads. This has been analyzed in Alternative 3. The reason for changing the motorized routes to non-motorized was to increase big game security. The existing security is 28% which is below the recommendation of 30%. Leaving the loop as motorized increases security from 28% to 33.4% while leaving some motorized trails for recreationist.
- Two undetermined roads in the Canyon Bay area will be decommissioned to protect resource values at risk (Table 2.22). These are roads #5298 and 2598A (0.24 miles).
- A new non-motorized trail within the East Reservoir analysis area will be created as described in Alternative 3. This trail will increase established recreation area along the Koocanusa Reservoir and will be part of the decision.

Following my review of the Interdisciplinary Team's analysis of the action alternatives, I have determined that the changes I am making to Alternative 2 are minor and within the scope and context of the environmental effects disclosed in the DEIS, FEIS, Biological Assessments, Biological Evaluation, and supporting documentation located in the project file (PF).

## **II. PROJECT AREA DESCRIPTION**

The East Reservoir project area (from now on referred to as analysis area) lies approximately 15 miles east of Libby, Montana in Lincoln County, along the east side of Lake Koocanusa Reservoir. The analysis area is approximately 92,407 acres. The National Forest System (NFS) manages 78,546 acres, Montana State Department of Natural Resources and Conservation (DNRC) manages 4,032 acres, 1,322 acres are in private ownership, Plum Creek Timber Company (PCTC) owns 7,672 acres and the Corp of Engineers (COE) manages 802 acres.

The legal description of the analysis area includes all or portions of T30N, R28W, Sections 2 to 11, 13 to 30 and 32 to 36; T30N, R29W, Sections 1 to 4, 9 to 16 and 24; T31N, R327W, Sections 3 to 10, 15 to 18, 20 to 22, 28 and 29; T31N, R28W, Sections 1 thru 36; T31N, R29W, Sections 1, 2, 10 to 15, 22, 23, 26 to 36; T32N, R27W, Sections 7 to 9, 14 to 23 and 26 to 33; T32N, R28W, Sections 2 to 5 and 8 to 36; and T32N, R29W, Sections 24 to 26, 35 and 36, PMM.

The East Reservoir analysis area makes up the analysis boundary for most resources. The analysis area for the wildlife resource varies with species and is described in the Wildlife Section in Chapter 3 of the DEIS.

The East Reservoir analysis area consists of five major drainages: Fivemile Creek, Warland Creek, Cripple Horse Creek, Canyon Creek and Dunn Creek. These drainages flow from east to west. These drainages are deeply incised by their streams and the ridgelines have fairly gentle slopes. Side slopes between these two features are generally steep.

The Reservoir East analysis area is a diverse landscape that ranges in elevation from a low of about 2,200 feet along the Kootenai River to 6,051 feet at the top of Davis Mountain. The south and west aspects of the analysis area have numerous small natural openings in a ponderosa pine and Douglas-fir canopy. The north and east aspects have a nearly continuous canopy of Douglas-fir, larch and lodgepole pine. This tree canopy is broken sharply by drainages.

The East Reservoir analysis area provides a variety of recreation opportunities. Recreation activities are varied and occur year-round. Activities include snowmobiling, hunting, fishing, off-highway vehicle (OHV) use, hiking, scenic viewing, wildlife viewing, camping and gathering forest products such as berries and firewood. There are several major rock forms visible in this analysis area, especially along Lake Koocanusa Reservoir.

### **III. OVERVIEW of our ANALYSIS and DECISION PROCESS**

National Forest planning takes place at several levels: national, regional, forest and project levels. The East Reservoir EIS is a project-level analysis; its scope is confined to addressing the major issues and possible environmental consequences of the project. It does not attempt to address decisions made at higher levels. It does, however, implement direction provided at those higher levels. The decision I am making here does not preclude the need for future decisions to help meet the desired conditions in the project area.

The Kootenai National Forest (KNF) Forest Plan (USDA 1987) provides the primary management direction for my decision. The Forest Plan prescribes goals and management standards for the KNF as a whole and for 23 subdivisions of the Forest referred to as management areas. In general, the goals and standards of the Forest Plan require me to balance a variety of resources and interests in managing these lands (e.g. maintaining or enhancing wildlife and fisheries habitat and providing a sustained yield of timber).

Specific management area (MA) direction from the Forest Plan further guides project development and location of activities in different areas. MAs affected by this project are described in the DEIS beginning in Chapter 1 on page 11 and displayed on the MA Map in the DEIS. The Forest Plan provides MA - specific goals and standards on pages III-43 through III-118. The KNF is in the process of Forest Plan revision. The Analysis of the Management Situation for the Revision of the Kootenai and Idaho Panhandle Forest Plans describes revision topics and issues being considered during revision (USDA Forest Service 2003).

The analysis and decision processes for this project are based on the consideration of the best available science. The manner in which best available science is addressed can be found throughout the disclosure of rationale found within the Biological Assessments, FWS Concurrence Letter, ROD, DEIS, FEIS Response to Comments, and the project file.

I also considered information presented in the Northern Region Overview.

### **IV. PURPOSE AND NEED FOR ACTION**

A number of specific resource and vegetation conditions that are currently not meeting long-term management objectives were identified in the broad scale assessment of the Cripple Planning Subunit (East Reservoir Landscape Assessment 2010) located in the project record. Opportunities to improve these conditions were developed through a comparison of reference conditions (generally presettlement condition) with current conditions and determining actions to improve those ecosystem components that are outside of a manageable natural range of variability. This is discussed in more detail in the Forest Vegetation, and Fire/Fuels sections in Chapter 3 of the DEIS. The assessment was based on Kootenai Forest Plan direction, the National Fire Plan, findings in the Northern Region Overview, the Upper Kootenai Assessment, and trends observed by interdisciplinary specialists conducting the landscape assessment.

The Purpose and Need for the activities proposed in the East Reservoir Project are to:

- Re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change;
- Create a heterogeneous landscape that provides a variety of habitats to sustain populations of terrestrial and aquatic species;
- Provide amenities, jobs and products to the communities;
- Reduce hazardous fuels adjacent to private property and across the landscape while re-introducing fire to the ecosystem;
- Enhance recreation settings and facilities with the goal of providing high quality experiences.

### **V. PUBLIC INVOLVEMENT**

#### **Proposed Action Development**

The Libby Ranger District completed a broad scale assessment of the Cripple Planning Subunit (East Reservoir

Landscape Assessment) in 2010. The proposed activities in the East Reservoir EIS were developed from opportunities identified in the East Reservoir Landscape Assessment and Travel Analysis Process (TAP) for the Cripple Planning Subunit. A copy of both these documents can be found in the project file.

### Proposed Action Scoping

Site-specific public comments on the East Reservoir Project proposed action were requested in November 2010 through publication of a Notice of Intent (NOI) in the *Federal Register* on November 15, 2010, and public scoping notices in December 2010 in the Kalispell, Montana, *Daily Inter Lake*; and the Libby, Montana, *Western News*. A notice was also mailed, on December 21, 2010, to individuals, agencies, organizations and tribal governments on the district mailing list for planning projects; 14 comment letters were received.

### Meetings

Meetings and field trips were held with the Kootenai Forest Stakeholders Coalition at their request to clarify the proposal and provide maps. (Please see Public Involvement section of the project file for documentation).

### Public Comments on Draft EIS

On June 10, 2013, the DEIS was mailed to all required agencies, and a DEIS summary, CD or notice of availability was mailed to all other project participants. A notice of availability was also mailed to all land owners of record in the project area. On June 14, 2013, a Notice of Availability for the East Reservoir Project DEIS was published in the *Federal Register*. A legal ad appeared in the Kalispell *Daily Inter Lake* (June 15, 2013) and display ads appeared in the Libby *Western News* (June 21, 2013) and *Kootenai Valley Record* (June 18, 2013). Eleven comment letters were received (see the FEIS for these letters and agency responses). On July 19, 2013 an extension to the comment period was published in the *Federal Register*. It extended the comment period to August 15, 2013.

### Tribal Involvement

The concerns of the Kootenai and Salish tribes were solicited through project scoping. In addition, the Confederated Salish and Kootenai Tribes have provided a tribal liaison to work in partnership with the Kootenai NF to review project proposals and provide tribal input. No concerns regarding this project were expressed by tribal governments.

### Other Agency Involvement

The U. S. Fish and Wildlife Service, and Montana Department of Fish, Wildlife and Parks were consulted regarding fish and wildlife habitat. The Lincoln and Sanders County Commissioners were contacted. The Montana Department of Environmental Quality (MDEQ), the Environmental Protection Agency (EPA), and Department of Interior Office of Environmental Policy and Compliance (DOI) also received project notifications or hard copies.

The US Environmental Protection Agency (FEIS Response to Comments, Letter #1) had some specific edits to the hydrology and air quality sections of the DEIS, which are reflected in the FEIS.

A biological assessment was sent to the U. S. Fish and Wildlife Service (FWS) on May 31, 2013. On August 8, 2013, the FWS concurred that the project **may affect but is not likely to adversely affect** the grizzly bear. This determination is based on the following: 1) the East Reservoir Project activities fall within the range-of-effects analyzed by the FWS in their programmatic BO and the Incidental Take Statement for the 2011 Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones and therefore, is not likely to contribute to the loss of grizzly bears from the Tobacco BORZ; 2) helicopter use associated with this project is consistent with the management strategies found in the Guide to Effects Analysis of Helicopter Use in Grizzly Bear Habitat (2009) that are not likely to adversely affect grizzly bears; the associated helicopter activities would not prohibit bears from using the area during any period of biological importance such as breeding, late fall foraging (hyperphagia), or denning; 3) the East Reservoir Project does not change the livestock management in the Tobacco BORZ; 4) project activities would not result in an increase in food attractants and would comply with the 2011 KNF Food Storage Order; 5) the project would not result in measurable increases in recreation use of the Tobacco BORZ based on limited improvements; and 6) the project does not involve changes to any type of mining activities within the Tobacco BORZ and would not result in habitat fragmentation between the SCYE and NCDE grizzly bear ecosystems.

The FWS also concurred that the project **may affect but is not likely to adversely affect** Canada lynx or Canada lynx critical habitat. This determination is based on the facts that: 1) the alternatives of the East Reservoir DEIS comply with all standards, guidelines, and objectives of the Northern Rockies Lynx Management Direction Record of Decision and its activities fall within the scope of those analyzed in the subsequent Biological Opinion (2007), more specifically, the project would not result in habitat conditions that would cumulatively contribute to the low level of species loss estimated by the 2007 BO; 2) these projects do not involve any activities that may result in increased areas of snow compaction, nor permanent loss of lynx habitat; and 3) although this project would temporarily affect the primary constituent sub-element, 'matrix' habitat and stem-exclusion stands, it meets ALL S1

standards, therefore maintaining habitat connectivity within and between associated LAUs. Additionally, the project would not remove or significantly alter any of the other primary constituent sub-elements including: space; nutritional or physiological requirements; cover or shelter; breeding or rearing sites; or habitats protected from disturbance that represent historic, geographical, and ecological distribution of the species. USFWS concurred with this determination.

The gray wolf Northern Rocky Mountains distinct population segment outside of Wyoming was removed from the List of Endangered and Threatened Wildlife effective May 4, 2009 (Federal Register Vol. 74, No. 62, pp. 15123-15188). Section 7 consultation is no longer required for the gray wolf in Montana.

Biological assessments document that the project will have **no effect** on the water howellia, Spalding's catchfly, bull trout or white sturgeon.

## **VI. SIGNIFICANT ISSUES**

Internal and external comments revealed three issues representing unresolved conflict with the proposed action (Alternative 2). These issues were used to develop alternatives to the proposed action.

1)**Regeneration Units over 40 acres:** Concerns of regeneration units exceeding 40 acres were received as they do not meet Kootenai National Forest Plan (KNFP) standards for MAs 11, 12 and 15. Forest Service policy (FSM 2471) states that the size of harvest openings created by even-aged silviculture in the Northern Region will be normally 40 acres or less. Creation of larger openings will require 60-day public review and Regional Forester approval.

The National Forest Management Act of 1976 [USC 1604 (g) (3) (F) (IV)], establishes opening size limits according to geographic areas, forest types or other suitable classifications. Regulations establish the size limit for our geographic area at 40 acres, with exceptions for larger openings when they will produce a more desirable combination of net public benefits. For information regarding this issue see page 14 of this draft ROD.

2)**Impact to Old Growth Forest Stands:** There is a concern that there is not enough old growth in the East Reservoir analysis area and that treatments prescribed in old growth would further decrease old growth within the project area. For information regarding this issue see page 14 of this draft ROD.

3)**Closing of approximately 36.6 miles of motorized trails in the project area would limit motorized user access:** Public comment received on the proposed action indicated that changing 36.6 miles of motorized trails to non-motorized would reduce motorized recreation and was not a favorable action. For information regarding this issue see page 14 of this draft ROD.

## **VII. DESCRIPTION of the ALTERNATIVES**

### **1. ALTERNATIVES GIVEN DETAILED STUDY**

#### **Alternative 1 – No Action**

The National Environmental Policy Act (NEPA) requires that an EIS include a "no action" alternative. The no-action alternative is based on the premise that ecosystems change, even in the absence of active management. It is essentially a "status quo" strategy that allows current activities and policies, such as recreation administration, road maintenance, and fire suppression to continue. It proposes no actions that are contained in the action alternatives described in the following paragraphs. This alternative provides a baseline for comparison of environmental consequences of the other alternatives to the existing condition (36 CFR 1502.14) and is a management option that could be selected by the deciding official.

#### **Alternative 2 – Proposed Action**

Intent: Alternative 2 is the proposed action, designed to meet the purpose and need for this project. It includes timber harvest, slash treatment, site preparation, prescribed burning, tree planting, and precommercial thinning that move the landscape toward desired conditions. Other activities of this action alternative are access management changes, construction of new roads, road storage and decommissioning activities, temporary road construction, implementation of BMPs, wildlife habitat enhancement and improvement of recreation settings, opportunities and experiences. Table 1 and the FEIS, Chapter 2, pages 6 to 2 contain more detailed information on these activities. Alternative 2 includes four project-specific Forest Plan amendments. They are:

**Project-Specific Amendment #1:** Units #40, 73T, 147, 148, 149 and 150 cannot meet MA 15 visuals direction because they are planned for regeneration treatments (seed tree & shelterwood) to exceed 40 acres either singularly or in combination with other units (USDA Forest Service 1987a, III-64-65).

Alternative 2 will reduce tree canopy from fully stocked to a seed tree prescription in concert with exceeding 40 acre limitation as directed by NFMA. Management Area 15 VQO is maximum modification. Treatment of these units supports purpose and need statement #1.

**Project Specific Amendment #2:** Unit #362 cannot meet MA 12 visuals direction because it is planned for regeneration treatment (clearcut) to exceed 40 acres. (USDA Forest Service 1987a, III-48-49).

Alternative 2 will reduce tree canopy from fully stocked to a clearcut prescription in concert with exceeding 40 acre limitation as directed by NFMA. Management Area 12 VQO is “maximum modification in areas of low visual significance, modification in areas of moderate visual significance, and partial retention in areas of high visual significance, unless infeasible when attempting to meet the goals of the Management Area.” Treatment of this unit supports purpose and need statement #1.

**Project Specific Amendment #3:** Units #73 and 188 cannot meet MA 16 visuals direction because they are planned for regeneration treatment (seed tree) to exceed 40 acres in combination. (USDA Forest Service 1987a, III-69-70).

Alternative 2 will reduce tree canopy from fully stocked to a seed tree prescription in concert with exceeding 40 acre limitation as directed by NFMA. Management Area 16 “minimum VQO is modification.” Treatment of these units supports purpose and need statement #1.

**Project Specific Amendment #4:** This alternative will require a project-specific KNFP amendment for harvest treatments in MA12 that removes hiding cover and movement corridors resulting in openings greater than 40 acres (Chapter 3, Wildlife Section for more information on hiding cover and openings). The KNFP standard for opening sizes in MA 12 is to maintain movement corridors of at least two site distances (400 feet) between openings, and generally not to exceed openings over 40 acres (KNFP p. III-49, Wildlife and Fish standards #7). Alternative 2 proposes one unit with acreage on MA12 land that result in openings that do not meet this standard. Unit 362 results in a 192 acre opening on MA12. Therefore, a site-specific KNFP amendment and Regional approval is necessary for this unit.

Alternative 2 will also require Regional Forester approval for exceeding NFMA opening requirements and 36 CFR Part 219.27(d)(2) which states the maximum regeneration harvest treatment for Montana is 40 acres. Past management within the analysis area has interspersed the forest with a series of 20-to-40 acre openings with very distinct (hard) edges between harvested and unharvested areas. This disturbance regime provides suitable habitat for species that are adapted to the edges between forested and non-forested areas. However, species that require larger blocks of habitat are at a disadvantage under such a disturbance regime. The analysis presented in the DEIS found the effects of larger openings will not result in adverse effects for big game, however treatments could result in openings that may not be fully utilized by elk as foraging areas, at least diurnally.

**Table 1 – Alternative Activities Summary**

| TIMBER HARVEST TREATMENTS (acres)               | ALT 1         | ALT 2         | ALT 3         |
|---|---------------|---------------|---------------|
| <b>Intermediate Harvest</b>                     |               |               |               |
| Sanitation Salvage                              | 0             | 332           | 301           |
| Improvement                                     | 0             | 2,799         | 2,696         |
| Commercial Thinning                             | 0             | 2,256         | 1,702         |
| Improvement/Shelterwood                         | 0             | 0             | 962           |
| Regeneration Harvest                            |               |               |               |
| Seedtree with Reserves                          | 0             | 1,507         | 1,105         |
| Clearcut with Reserves                          | 0             | 521           | 475           |
| Shelterwood with Reserves                       | 0             | 297           | 162           |
| Seedtree/Shelterwood                            | 0             | 135           | 65            |
| Irregular Shelterwood                           | 0             | 69            | 56            |
| Improvement/Shelterwood                         | 0             | 929           | 0             |
| <b>Total Harvest</b>                            | <b>0</b>      | <b>8,845</b>  | <b>7,524</b>  |
| <b>SLASH TREATMENT (acres)</b>                  |               |               |               |
| Grapple Pile/Burn Piles                         | 0             | 3,952         | 2,457         |
| Underburn with Timber Harvest                   | 0             | 2,771         | 3,390         |
| Prescribed Fire without Timber Harvest          | 0             | 1,378         | 1,309         |
| Fuels and Wildlife Treatment/Prescribed Fire    | 10,049        | 10,049        | 10,049        |
| <b>Total Slash Treatment</b>                    | <b>10,049</b> | <b>18,150</b> | <b>17,205</b> |
| <b>ROAD CONSTRUCTION/RECONSTRUCTION (miles)</b> |               |               |               |
| New Permanent Road Construction                 | 0             | 9.25          | 7.23          |
| Temporary Road Construction                     | 0             | 4.26          | 3.91          |
| Road Reconstruction and BMPs (haul routes)      | 0             | 176.40        | 167.85        |
| <b>ACCESS CHANGES (miles)</b>                   |               |               |               |
| Trails: Motorized Use to Non-Motorized Use      |               | 36.56         | 26.89         |

|  |   |       |       |
|--|---|-------|-------|
| Road Access Changes                                      |   | 1.79  | 5.34  |
| Undetermined Roads to NFS Roads                          |   | 13.50 | 13.37 |
| Undetermined Roads to Decommissioned Roads               |   | 6.24  | 6.48  |
| <b>WATERSHED REHABILITATION</b>                          |   |       |       |
| Miles of Road Put in to Long-Term Storage                |   | 16.00 | 17.62 |
| Miles of Existing Road to be Decommissioned              |   | 5.93  | 5.93  |
| Number of Stream Crossings Restored (estimate)           |   | 49    | 49    |
| Stream Bank Stabilization                                |   | Yes   | Yes   |
| <b>PLANTING (acres)</b>                                  |   |       |       |
| Conifer Planting   | 0 | 3,346 | 1,729 |
| <b>OTHER ACTIVITIES</b>                                  |   |       |       |
| Precommercial Thinning (acres)                           |   | 5,563 | 5,687 |
| White Pine Precommercial Thinning (20% of stand acres)   |   | 212   | 0     |
| Miles of Road Proposed for Cost-Share among the FS, DNRC |   | 29.72 | 30.29 |

### Alternative 3

Intent: Alternative 3 was designed to implement projects that meet the purpose and need for action and to meet all standards put forth in the KNFP and NFMA. Briefly these standards include opening size in MA 12 and 15, impacts to old growth forest stands and amount of motorized trails in project area changing to non-motorized.

To meet NFMA requirements and KNFP recommendations for over 40 acre openings, all units were reduced to 40 acres or under (Issue #1). All treatments in old growth units were dropped as a KNFP amendment would have been needed (Issue #2). Two of the six motorized trails will remain motorized creating a loop for recreationist to travel (Issue #3). Further reconnaissance showed the need to add fuel unit F19. Several units were dropped to meet the maximum protection measures for goshawk according to Reynolds et al. 1992. Unit 68 was dropped due to the presence of a red-tailed hawk nest. The white bark pine thinning was dropped from this alternative so as not to implement the exception in the Northern Rockies Lynx management Direction. Overall acres in the Fuels and Wildlife units could be reduced (by approx. 608 ac) if burning conditions are not favorable within the lynx analysis unit and burning would result in habitat reduction. Treatment units for which this reduction would occur are available in the project file.

No Forest Plan amendment would be needed with this alternative.

## 2. ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

The following alternatives, suggested in public comments or by ID team members, were considered but dismissed from detailed consideration for the reasons summarized below.

**Alternative 5** addressed public comments concerning no road storage and no change in motorized trail access. Some of the public was concerned that road storage would limit access for public recreation and forest management. Some public felt that changing motorized trails to non-motorized trails would decrease access for public recreation. Alternative 5 was not analyzed in detail for several reasons. First, road storage (intermittent stored service) is a category to manage existing roads that have adverse impacts on watershed quality. The roads would be closed to traffic and left in a condition that there is little resource risk if maintenance is not performed. Second, road storage would not measurably impede future forest management. Roads that are not needed in the short-term (10 to 20 years), but would likely be needed at some time in the future would be stored. Storage may include surface ripping, seeding and/or cross ditching and may include some sections of partial road recontouring as needed on a site-specific basis, but the majority of the road prism would be retained for future access needs. The majority of road prisms would be left in place based on the Travel Analysis Process (TAP), most of these roads are not needed for short-term (10 to 20 yrs.) access for commercial timber management. The TAP can be found in the Project File.

Action Alternative 4 was also developed to address public concerns on regeneration treatment units over 40 acres, treatments in old growth, treatments in lynx habitat, and motorized trail access. However, subsequent to the application of design measures for both Alternatives 2 and 3, Alternative 4 did not measurably add to the range of alternatives and was dropped as all public and internal concerns were addressed fully in Action Alternatives 2 and 3.

## VIII. SPECIFICS OF THE SELECTED ALTERNATIVE

### ALTERNATIVE 2 with MODIFICATIONS

I am implementing Alternative 2 with some modifications. The changes I made to Alternative 2 are summarized in draft ROD Section I, responding to public concerns. See Section IX, Principal Factors Considered in My Decision for more information on the rationale for this decision, including how it best responds to public concerns.

A map of the selected alternative and a summary of treatments are included in this Record of Decision. The selected

alternative, Alternative 2 with modifications, is the environmentally preferred alternative. While Alternative 2 with modifications includes more vegetation harvest treatments and disturbs more acreage than Alternative 3, it will result in more area moving toward the desired condition as described in the FEIS.

The following is my decision for various management practices contained in Alternative 2 with modifications:

**1. Whether to implement vegetation management activities (silvicultural prescriptions, logging methods, slash treatment, reforestation, prescribed fire), including mitigation measures and design features to protect resources and, if so, the site-specific location of these activities and practices.**

Commercial harvest will be implemented on approximately 8,845 acres to maintain the vigor and long-term productivity of forest stands by:

- Enhancing species diversity trending toward reference conditions (Vegetation Section, Chapter 3) which are better adapted and more resistant and resilient to disturbances. This will occur through regeneration harvest and planting western white pine, western larch and ponderosa pine.
- Move timber stand towards tree stocking densities through commercial thinning, regeneration harvest and planting trending the stands towards reference density conditions. The risk of tree mortality from insect and disease infestations, primarily mountain pine beetle, will decrease with density reduction especially on the dry land sites and in LPP stands.
- Restoration toward reference condition levels of successional stages through improvement harvests and regeneration harvests. This alternative will restore successional stage diversity across the landscape that is better adapted to disturbances and will provide foraging areas for various wildlife species including Canada lynx, grizzly bears, large ungulates, and various small mammals.
- Encroachment of Douglas-fir will be reduced on the dry ponderosa pine habitat types, in turn reducing the fire risk in the wildland-urban interface (WUI).

Draft ROD Appendix 1 presents a summary of the treatments for each unit. A map of the site-specific locations is attached to this document.

Activity fuels will be treated by yarding tops (26%), grapple piling (43%), underburning (30%) and slashing (1%). Approximately 91% (8,053 acres) of the proposed harvest units will utilize ground-based logging systems (tractor yarding) and 9% (792 acres) will utilize a skyline yarding system due to steep slopes with available access roads.

Road maintenance and Best Management Practices (BMP) work will be applied to approximately 176 miles of haul roads.

Design features to protect resource values, including trails, visuals, soils, streams, noxious weed reduction and wildlife habitat are included in this decision (draft ROD Appendix 2).

**2. Whether to construct temporary roads to access proposed timber harvest units**

Approximately 4 miles of temporary road construction is proposed to access harvest units. These roads are needed to access the various harvest units to meet the purpose and need of this project. These roads will be restored after timber harvest is completed since they will not be needed in the future. Table 2 displays the list of temporary roads, their length, the drainage they will be in and which units they access.

**Table 2– Alternative 2 Temporary Roads**

| ROAD # | MILES | DRAINAGE            | UNIT ACCESS |  | ROAD #                    | MILES | DRAINAGE       | UNIT ACCESS |
|--------|-------|---------------------|-------------|--|---------------------------|-------|----------------|-------------|
| T5     | 0.16  | Warland Creek       | 17          |  | T44                       | 0.15  | Upper Fivemile | 150         |
| T6     | 0.38  | Cripple Horse Creek | 22          |  | T45                       | 0.25  | Warland Creek  | 49          |
| T14    | 0.14  | Davis Mtn           | 318         |  | T53                       | 0.37  | Upper Fivemile | 148         |
| T25    | 0.59  | Canyon Creek        | 31, 197     |  | T54                       | 0.23  | Canyon Creek   | 344         |
| T28    | 0.58  | Canyon Creek        | 38, 345     |  | T55                       | 0.31  | Canyon Creek   | 343         |
| T37    | 0.12  | Cripple Horse       | 340         |  | T57                       | 0.26  | Canyon Creek   | 23          |
| T42    | 0.20  | Dunn Creek          | 362         |  | T58                       | 0.21  | Cripple Horse  | 179         |
| T43    | 0.31  | Dunn Creek          | 362         |  | <b>TOTAL = 4.26 miles</b> |       |                |             |

**3. Whether to implement road storage or decommissioning activities to improve watershed condition and, if so, where.**

Road storage and decommissioning is designed to improve watershed conditions and enhance wildlife security. Table 3 displays the roads that will be stored or decommissioned through this project.

Table 3 – Intermittent Stored Service and Decommissioning

| ROAD #                     | ROAD NAME                | EXISTING STATUS   | POST-PROJECT STATUS                       | LENGTH (miles) |
|----------------------------|--------------------------|---|---|----------------|
| <b>FIVEMILE CREEK</b>      |                          |   |   |                |
| 4885C                      | Stenerson Mtn C          | 12 – Restricted Seasonally 12/1 – 6/30, including snow vehicles | Stored, undrivable                        | 0.35           |
| 4885H                      | Stenerson Mtn H          | 12 – Restricted Seasonally 12/1 – 6/30, including snow vehicles | Stored, undrivable                        | 0.49           |
| 4885I                      | Stenerson Mtn I          | 12 – Restricted Seasonally 12/1 – 6/30, including snow vehicles | Stored, undrivable                        | 0.81           |
| 4885J                      | Stenerson Mtn J          | 05 – Restricted yearlong to all motorized vehicles              | Stored, undrivable                        | 0.12           |
| 4893A                      | Middle Fork Fivemile     | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 1.95           |
| 4895                       | Lower Fivemile           | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 2.29           |
| 5047                       | North Upper Fivemile     | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 0.88           |
| 5050                       | Upper Fivemile Face      | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 0.45           |
| 5049                       | Upper Fivemile View      | Open yearlong   | Decommissioned – not driveable            | 0.20           |
| 5050A                      | Upper Fivemile Face A    | Open Yearlong   | Decommissioned – not driveable            | 0.15           |
| 5050B                      | Upper Fivemile Face B    | Open Yearlong   | Decommissioned – not driveable            | 0.16           |
| 8843                       | South Fivemile           | Private Access  | Decommissioned – not driveable            | 0.01           |
| <b>WARLAND CREEK</b>       |                          |   |   |                |
| 566                        | Warland Creek Fivemile   | 05 – Restricted Yearlong to all motorized vehicles              | Stored, undrivable                        | 2.03           |
| 4891D                      | Warland Basin D          | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 1.85           |
| 5055                       | Upper Warland South      | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Decommissioned – not driveable            | 1.98           |
| <b>CRIPPLE HORSE CREEK</b> |                          |   |   |                |
| 4904G                      | Boundary Mtn G           | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 1.95           |
| 5060                       | Summit Springs Unit      | Open  | Stored, Undrivable                        | 0.27           |
| 5061                       | West Weigel Mtn III      | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 0.28           |
| 5167                       | Cripple Horse Lake Creek | Open  | Stored, undrivable                        | 0.38           |
| XX50                       | Summit Springs           | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 0.30           |
| 4423B                      | Weigel Mtn B             | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Decommissioned – not driveable            | 0.13           |
| 4823C                      | Weigel Mtn C             | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Decommissioned – not driveable            | 1.22           |
| 4904K                      | Boundary Mtn K           | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Decommissioned – not driveable            | 0.11           |
| 4951                       | West Weigel Mtn          | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Decommissioned – not driveable            | 0.63           |
| 5062                       | West Weigel Mtn IV       | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Decommissioned – not driveable            | 0.16           |
| 5269                       | West Weigel Mtn II       | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Decommissioned – not driveable            | 0.13           |
| <b>CANYON CREEK</b>        |                          |   |   |                |
| 4917                       | North Canyon             | 09 – Restricted Yearlong, open to snow vehicles 12/1 – 4/30     | Stored, open to snow vehicles 12/1 – 4/30 | 1.02           |
| <b>DUNN CREEK</b>          |                          |   |   |                |
| XX29                       | Hornet Ridge             | 05 – Restricted Yearlong to all motorized vehicles              | Stored, undrivable                        | 0.58           |
| 4923C                      | East Wyoma C             | 09 - Restricted Yearlong, open to snow                          | Decommissioned – not                      | 0.75           |



| ROAD #                            | ROAD NAME    | EXISTING STATUS   | POST-PROJECT STATUS            | LENGTH (miles) |
|-----------------------------------|--------------|---|--------------------------------|----------------|
|                                   |              | vehicles 12/1 – 4/30  | driveable                      |                |
| 4923D                             | East Wyoma D | 09 - Restricted Yearlong, open to snow vehicles 12/1 – 4/30 | Decommissioned – not driveable | 0.30           |
| <b>TOTAL STORED = 16.00 miles</b> |              | <b>TOTAL DECOMMISSIONED = 5.93 miles</b>                    |                                |                |

#### 4. Whether to construct new permanent roads to harvest units and recreation sites.

Approximately nine miles of new permanent road construction is proposed in this project. These new roads will access harvest and fuels units (Table 4). About 0.20 miles of the new road will be built on FS lands to allow the DNRC access to their lands. The new roads are not only needed for the East Reservoir Project but have been assessed through the Travel Analysis Process (TAP) to be needed for future management. Table 4 displays the road numbers and corresponding mileages for the proposed new road construction plus the units that are accessed.

**Table 4 – Alternative 2 Newly Constructed Permanent Roads**

| ROAD NUMBER               | MILES | DRAINAGE          | UNIT ACCESS                 |
|---------------------------|-------|-------------------|-----------------------------|
| N1                        | 0.30  | Fivemile          | 4, 132, Dispersed Camp Site |
| N3                        | 0.80  | Canyon            | 29                          |
| N4                        | 0.33  | Warland           | 15                          |
| N5                        | 0.46  | Canyon            | 203                         |
| N6                        | 0.87  | Davis Mtn         | 62, 62A, 317, 318           |
| N7 (6288)                 | 0.80  | Warland           | 13, 14, 14A, 159, F10       |
| N8                        | 1.31  | Canyon            | 32, 205                     |
| N9                        | 0.32  | Dunn              | 45A, 45B                    |
| N11                       | 0.17  | Canyon            | 192                         |
| N12                       | 0.25  | Dunn              | 45A                         |
| N13                       | 0.36  | Dunn              | 45B, F45                    |
| N14                       | 0.45  | Warland           | 9, 158                      |
| N15                       | 0.32  | Warland           | 170                         |
| N16                       | 0.24  | Warland           | 10, 157                     |
| N18                       | 0.03  | Warland Reservoir | 17                          |
| N19                       | 0.19  | Cripple Horse     | 36                          |
| N21                       | 0.59  | Davis             | 59, 317                     |
| N23                       | 0.30  | Warland           | 170                         |
| N39                       | 0.20  | Canyon            | Cost-Share to Sec 36        |
| N40                       | 0.76  | Upper Fivemile    | 150                         |
| N41                       | 0.20  | Summit Springs    |                             |
| <b>TOTAL = 9.25 miles</b> |       |                   |                             |

#### 5. Whether to make improvements to recreation sites.

The recreation proposal involves the dispersed recreation sites on the south side of the mouth of Fivemile Creek and at the Yarnell camping area.

Currently the Fivemile area receives relatively little dispersed camping use due primarily to poor access. Existing roads will be improved. New road construction (N1) to access harvest Units 4 and 132 will be left to provide more opportunities for dispersed camping. Native rock ring fire pits, vault toilets and signage and other improvements will be provided.

The Yarnell area is a very popular destination for dispersed camping. The site(s) are occupied primarily from Memorial Day through Labor Day and receives steady use. The road infrastructure is in place and the objective would be to improve the road without changing the character of the area.

In addition, several roads that access dispersed camping areas along the Koocanusa Reservoir will be open yearlong which is a change from seasonal closures. Table 5 displays the roads that are proposed to change access.

**Table 5 – Alternative 2 East Reservoir Road Access Changes**

| ROAD # | ROAD NAME                 | EXISTING STATUS  | POST-PROJECT STATUS | MILES |
|--------|---------------------------|--|---------------------|-------|
| 4890   | Canyon Creek Access       | 10 – Restricted seasonally to motor vehicles, Open to snow vehicles. | Open Yearlong       | 0.84  |
| 5296   | Canyon Bay Dispersed East | 10 - Restricted seasonally to motor vehicles, Open to snow vehicles. | Open Yearlong       | 0.17  |
| 5298   | Canyon Bay Dispersed West | 10 - Restricted seasonally to motor vehicles, Open to snow vehicles. | Open Yearlong       | 0.19  |

| ROAD #                    | ROAD NAME      | EXISTING STATUS  | POST-PROJECT STATUS | MILES |
|---------------------------|----------------|--|---------------------|-------|
| 14519                     | Yarnell Access | 10 - Restricted seasonally to motor vehicles, Open to snow vehicles. | Open Yearlong       | 0.59  |
| <b>TOTAL = 1.79 miles</b> |                |  |                     |       |

#### 6. Whether to change motorized trails to non-motorized trails.

Access changes will occur on approximately 27 miles of motorized trails in Alternative 3 (Table 6). Trail 281 and 420 will remain as motorized routes creating a loop which includes open NFS roads for recreationists to enjoy. By making this change, wildlife security will increase from 28% to 33% meeting the recommended percent security in the analysis area while keeping trails open to motorized travel.

**Table 6 - Alternative 3 East Reservoir Trail Access Changes**

| TRAIL ID                   | LOCATION             | EXISTING STATUS   | POST-PROJECT STATUS | MILES |
|----------------------------|----------------------|-------------------|---------------------|-------|
| 279                        | Warland Ridge        | Motorized allowed | Non-Motorized Only  | 10.70 |
| 280                        | Warland Peak Lookout | Motorized allowed | Non-Motorized Only  | 2.30  |
| 420                        | Canyon Divide        | Motorized allowed | Non-Motorized Only  | 6.38  |
| 426                        | Fivemile             | Motorized allowed | Non-Motorized Only  | 1.82  |
| 500                        | Hornet Ridge         | Motorized allowed | Non-Motorized Only  | 5.69  |
| <b>TOTAL = 26.89 miles</b> |                      |                   |                     |       |

#### 7. Whether to cost-share roads with DNRC and/or PCTC.

The Forest Service and the Montana State Department of Natural Resources and Conservation (DNRC) have proposed to cost-share in several roads in the analysis area. Table 7 displays the roads proposed for cost share and their mileages along with their locations.

**Table 7 – Cost Share Roads**

| ROAD ID | MILES | LOCATION                     | ACTIVITY            | NEW CONSTRUCTION |
|---------|-------|------------------------------|---------------------|------------------|
| 7738    | 1.23  | South Warland Creek - Sec 36 | FS/CS on State Land | No               |
| 4907    | 0.34  | Cripple Canyon – Sec 19      | FS/CS on State Land | No               |
| 6724    | 0.32  | Gopher Hill - Sec 14         | FS/CS on State Land | No               |
| 7713    | 0.22  | Gopher Hill                  | FS/CS on State Land | No               |
| 7713A   | 1.05  | Sec 14                       |                     |                  |
| 566     | 0.17  | Warland Creek                | DNRC/CS on FS Land  | No               |
| 7738    | 0.15  | Sec 25 and 35                |                     |                  |
| 7738A   | 0.19  |                              |                     |                  |
| 7713    | 0.06  | Gopher Hill - Sec 23         | DNRC/CS on FS Land  | No               |
| 6724    | 1.44  | Gopher Hill - Sec 14         | DNRC/CS on FS Land  | No               |
| 4904    | 1.18  | Cripple Canyon               | DNRC/CS on FS Land  | No               |
| 4912    | 3.61  | Sec 25, 26, 27, 59, 30, 19   |                     |                  |
| 4925    | 1.41  |                              |                     |                  |
| 4907    | 0.31  |                              |                     |                  |
| 4908    | 2.64  |                              |                     |                  |
| 4908A   | 1.25  |                              |                     |                  |
| 4913    | 3.30  | Hornet Ridge - Section 31??? | DNRC/CS on FS, PCTC | No               |
| 334     | 7.30  | South Canyon Creek           | DNRC/CS on FS Land  | Yes; N39         |
| 4953    | 0.56  |                              |                     |                  |
| 4953A   | 0.89  |                              |                     |                  |
| N39     | 0.20  |                              |                     |                  |
| 4925    | 1.90  | Canyon Creek – Sec 14, 24    | FS/CS on State Land | No               |

#### 8. What, if any, specific project monitoring requirements are needed to assure management measures and design features are implemented and effective, or to evaluate success of project objectives.

The monitoring plan in the draft ROD Appendix 3 will be implemented. This plan includes implementation and effectiveness monitoring activities related to design features for noxious weeds, soils, protection of trails, wildlife habitat, and fisheries. Design features included in the project are located in the draft ROD Appendix 2.

#### 9. Whether to request Regional Forester approval for regeneration units over 40 acres.

Part of the purpose and need of the East Reservoir Project is to 1) re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change; 2) create a heterogeneous landscape that provides a variety of habitats to sustain populations of terrestrial and aquatic species; and 3) enhance recreation settings and facilities with the goal of providing high quality experiences. To achieve these objectives, it is necessary to create openings larger than 40

acres in size. Specifically, these larger openings are needed in order to:

- Trend the landscape towards a more desirable pattern of patch sizes that mimics natural processes and restores historical patterns of patch size (FEIS, pp.23-25; Vegetation Report, Desired Condition, VRU 4,5 and 7).
- Create a pattern of fuel treatments at a landscape scale that is likely to disrupt large fire growth and spread and assist in the efficacy of suppression efforts. Design fuel treatments to provide a fuel break immediately adjacent to a major power transmission line (FEIS, Fire and Fuels Report, p. 182).
- Create openings that reduce edge effect and reduce fragmentation, which can result from more numerous treatment areas and still achieve the same objectives. (FEIS, Wildlife Report, p. 224, 301 and 308).

The proposed action for the East Reservoir Project will create forest openings larger than 40 acres in size through the use of even-aged regeneration methods. Eight of the regeneration harvests (Units 40, 62, 73T, 147, 148, 149, 150 and 362) are proposed as over 40 acre regeneration but do not mimic the large historic patch size of 5,000 to 100,000 acres. However, Units 40, 62, 73T, 147, 148, 149 and 150 are placed adjacent to past harvest that are recovered but are within the early-successional stage. By these units being blocked up with other early-successional stages this larger block mimics historic conditions and will move into the future as a connected patch of interior forest (FEIS, Vegetation Report, p. 45, 46, 47). In accordance with direction provided in the R1 supplement to FSM 2471.1, Regional Forester approval to exceed the 40 acre size limit has been requested and granted (Project File Vol. s, Doc 31).

## IX. PRINCIPLE FACTORS CONSIDERED IN MY DECISION

I have selected Alternative 2 with modifications, as it is described previously, because it best addresses public concerns while meeting the purpose and need for the project and protecting resources. This section details my rationale for this decision.

### Benefits of Implementing the Action Alternatives

Both of the action alternatives satisfy my decision criteria and implementation of either of them will result in many benefits as follows:

- Maintain diverse age classes of vegetation for viable populations of all existing vertebrate species;
- Reduce overall stand densities and promotion of fire-adapted species such as ponderosa pine and western larch;
- Introduce prescribed fire to simulate natural ecological processes, prevent excessive fuel buildups, create habitat diversity for wildlife, reduce fire suppression costs, maintain ecosystems, and to create shrub fields for wildlife foraging habitat;
- Provide forest products within the sustainable capability of the ecosystem;
- Provide access to National Forest System and private lands while providing ecological integrity, wildlife security habitat and protecting water quality;
- Maintain a balance of open and closed roads to ensure big-game habitat security;
- Improves recreation experience through improvements in dispersed camping sites.

All action alternatives respond in various ways to the purpose and need for action. Because the purpose and need for action responds to Forest Plan goals, objectives, and standards, I used it as an indicator of Forest Plan implementation. Table 8 displays a comparison of purpose and need objectives by alternative, which helped me evaluate how well the effectiveness of each alternative responds to the Forest Plan.

**Table 8 - Comparison of Purpose and Need Objectives by Alternative**

| <b>RE-ESTABLISH, RESTORE and RETAIN LANDSCAPES that are MORE RESISTANT and RESILIENT to DISTURBANCE (INSECT and DISEASE INFESTATIONS, FIRE) and UNCERTAIN ENVIRONMENTAL CONDITIONS such as CLIMATE CHANGE</b> | <b>ALT 1</b> | <b>ALT 2</b> | <b>ALT 3</b> |
|---|--------------|--------------|--------------|
| Commercial Timber Harvest (acres)   | 0            | 8,845        | 7,782        |
| Precommercial Thinning (acres)  | 0            | 5,563        | 5,563        |
| White Pine Precommercial Thinning (20% of stand acres)  | 0            | 212          | 0            |
| <b>CREATE a HETEROGENEOUS LANDSCAPE that PROVIDES a VARIETY of HABITATS to SUSTAIN POPULATIONS of TERRESTRIAL and AQUATIC SPECIES</b>   |              |              |              |
| Motorized Trails Changed to Non-Motorized (miles)   | 0            | 36.56        | 26.89        |
| Fuels and Wildlife Treatment (acres)  | 0            | 10,049       | 10,049       |
| <b>PROVIDE AMENITIES, JOBS AND PRODUCTS TO THE COMMUNITIES</b>  |              |              |              |
| Timber Harvest Volume, Estimated, CCF   | 0            | 78,761       | 67,987       |
| Total Employment (persons)  | 0            | 629          | 560          |
| <b>REDUCE HAZARDOUS FUELS ADJACENT TO PRIVATE PROPERTY AND ACROSS THE LANDSCAPE WHILE RE-INTRODUCING FIRE TO THE</b>  |              |              |              |

| ECOSYSTEM   |    |        |        |
|---|----|--------|--------|
| Natural Fuel Reduction/Stand IMP through Hand Slashing, Grapple Piling, Chipping, Mastication or Mechanical Product Removal (acres) | 0  | 1,378  | 1,309  |
| Fuels and Wildlife Treatment (acres)  | 0  | 10,049 | 10,049 |
| ENHANCE RECREATION SETTINGS AND FACILITIES WITH THE GOAL OF PROVIDING HIGH QUALITY EXPERIENCES                                      |    |        |        |
| Construction and Improvement of Recreation Access Roads (miles)   | 0  | 6.28   | 6.28   |
| Road Access Changed to Yearlong Access (miles)  | 0  | 1.79   | 1.79   |
| Native Rock Ring Fire Pits, Vault Toilets and Signage Proposed  | No | Yes    | Yes    |

### Why I Did Not Select the No-Action Alternative (Alternative 1)

There are many reasons I did not select Alternative 1 (no-action). While in the short-term, doing nothing may have less effect than the short-term disturbances associated with the action alternative activities, over time, the consequences of doing “nothing” are potentially far greater. I did not select Alternative 1 because:

- Species diversity, stocking density and successional stages consistent with reference conditions is better adapted and therefore more resistant and resilient to disturbances. Without disturbance this landscape will continue to trend away from reference conditions for species diversity. There will be no prescribed fire, regeneration harvest and planting western white pine, western larch and ponderosa pine in the no action alternative.
- Restoring tree stocking densities through commercial thinning, precommercial thinning, regeneration harvest and planting will not occur. These stands will not trend towards reference density conditions. The risk of tree mortality from insect and disease infestations, primarily mountain pine beetle, will likely increase on the dry land sites and in lodgepole pine (LPP) stands. Wildfire potential and intensity will also remain higher than reference conditions
- Trending successional stages toward reference condition levels through improvement harvests and regeneration harvests will not occur. Restoring successional diversity across the landscape that is better adapted to disturbances will not occur.
- In concert with continued wildfire suppression, encroachment of Douglas-fir will continue in the dry ponderosa pine habitat types creating an increased fire risk in the wildland-urban interface (WUI).
- Existing motorized trails will not be closed which will maintain security habitat at less than desired secure habitat by seven percent within the analysis area for large mammals including moose, elk, deer and sheep.
- Without weed treatment and burning activities, shrub and grass species in the natural openings will continue to decline in value as browse for big game. Weed treatment will continue consistent with Weed EIS and funding, but will not be increased and may not keep up with the expansion of noxious weeds.
- With continued fire suppression, conifer encroachment on bighorn sheep escape habitat will result in higher risk of mortality from predators because increased cover will be provided for stalking predators.
- Lack of forest regeneration in concert with fire suppression will result in less early successional forest which provides snowshoe hare foraging habitat, thus likely reducing prey numbers for the threatened Canada lynx.
- Natural regeneration of seral species such as ponderosa pine and western larch will be minimal. These species are better adapted to disturbance such as fire and were present in larger numbers historically.
- Precommercial thinning will not occur, allowing overstocked sapling-size stands to become stagnant and allowing shade-tolerant species to dominate.
- Improperly installed or undersized culverts will continue to impede aquatic organism passage and have a higher likelihood for plugging and failing than properly-sized culverts.
- There will be no management for visuals along Scenic Byway 37.
- There will be no jobs or labor income associated with timber harvest and other resource activities.

In summary, the no-action alternative does not satisfy the purpose and need for the project and does not implement the Forest Plan direction for this area, which includes improving forest conditions and habitats through management practices. (See FEIS Chapter 3 analysis of Alternative 1 for more detailed information on the effects of no action).

### Why I Selected Alternative 2 with Modifications

I selected Alternative 2 with modifications over the other action alternative because it best addresses public concerns while achieving project objectives. The following paragraphs explain my rationale by key issue for this project:

#### Regeneration Units Over 40 Acres

Concern over regeneration units exceeding 40 acres is addressed by altering the shape of the units and/or retaining leave islands within the interior of the units. Eight of the regeneration harvests (Units 40, 62, 73T, 147, 148, 149, 150 and 362) are proposed as over 40 acre regeneration but do not mimic the large historic patch size of 5,000 to 100,000 acres. However, Units 40, 62, 73T, 147, 148, 149 and 150 are placed adjacent to past harvest that are recovered but are within the early-successional stage. Blocking up with proposed units with existing early-successional stage stands creates larger blocks that do mimic historic conditions. Over time these stands will

mature into a connected patch of interior forest (FEIS, Vegetation Report, p. 45, 46, 47). In accordance with direction provided in the R1 supplement to FSM 2471.1, Regional Forester approval to exceed the 40 acre size limit has been requested and granted (Project File Vol. s, Doc 31).

### Impact to Old Growth Forest Stands

Concern regarding the impact to old growth stands are addressed by dropping proposed vegetation treatments in old growth. Alternative 2 maintains fuel treatments (~173 ac) in some old growth such as in VRU 2. The purpose of prescribed fire in old growth, as identified in the KNFP, is to maintain old growth characteristics. These will occur in dry land old growth such as south aspects of VRU2 and VRU3. Treatments to be implemented are designed to reduce ladder fuels via a combination of slashing and prescribed burning. Reducing ladder and surface fuels will maintain or enhance some of the dry land old growth attributes and help ensure the survivability of the older, large diameter trees in these individual stands. The overall goal is to work towards returning these stands to their appropriate fire regime and increased fire resiliency.

### Closing of Approximately 27 miles of Motorized Trails (Big Game Security)

As explained previously, both action alternatives meet many of the purpose and need objectives to a similar extent. However, in response to public comment, Alternative 2 with modifications changes less motorized trails to non-motorized while meeting recommended values for wildlife security (Table 6).

Table 9 displays a comparison of the alternatives by significant issue.

**Table 9 - Comparison of Issue Indicators by Alternative**

| <b>ISSUE #1 – REGENERATION HARVESTS OVER 40 ACRES</b>               | <b>ALT 1</b> | <b>ALT 2</b> | <b>ALT 3</b> |
|---|--------------|--------------|--------------|
| Number of Units Over 40 acres in MA12                               | 0            | 1            | 0            |
| Number of Units Over 40 acres in MA 15, 16                          | 0            | 8            | 0            |
| <b>ISSUE #2 - IMPACT to OLD GROWTH FOREST STANDS</b>                |              |              |              |
| Vertical Structure Removed in Designated OG/ROG (acres)             | 25           | 137          | 0            |
| Vertical Structure Removed in Undesignated OG (acres)               | N/A          | 43           | 0            |
| Road Length Existing/Built Adjacent/Through Designated OG/ROG (ft.) | 158,400      | +666         | +666         |
| Number of Existing or Proposed Regeneration Units Adjacent to OG    | 136          | +28          | +23          |
| Edge Influence in OG (acres)  | 1,744        | +250         | +241         |
| Interior Habitat Remaining in Old Growth (acres)                    | 7,518        | 7,268        | 7,277        |
| Treated to Maintain OG or Trend Stand Toward OG (Burning) (acres)   | N/A          | 1,326        | 0            |
| Percent of Designated Old Growth in the PSU                         | 11.2         | 11.2         | 11.2         |
| <b>ISSUE #3 - MOTORIZED vs. NON-MOTORIZED TRAILS</b>                |              |              |              |
| Motorized Trails Changed to Non-Motorized (miles)                   | 0            | 36.56        | 26.89        |
| Security Cover (Standard 30%)                                       | 28.1         | 35           | 33.4         |

### Cumulative Effects

In addition to the purpose and need and public issues, I considered the potential for cumulative effects from past, present, and reasonably foreseeable actions in conjunction with project activities, as disclosed in Chapter 3 of the FEIS, and I determined there will be no significant cumulative effects. In making this determination, I examined past, present, ongoing, proposed, and reasonably foreseeable future actions and the cumulative effects analysis is consistent with the Forest Service NEPA Regulations (36 CFR 220.4(f), July 24, 2008) in accordance with the Council on Environmental Quality Memorandum, *Guidance on the Consideration of Past Actions in Cumulative Effects Analysis*.

My conclusion is based on: 1) the project's consistency with CEQ direction, 2) on-the-ground review and discussions with district resource specialists, and 3) review of the extensive project environmental documentation, including biological assessments, and findings that through project design resources are protected.

## X. FINDINGS REQUIRED BY LAW, REGULATION, AND AGENCY POLICY

Numerous laws, regulations, and agency directives require that my decision be consistent with their provisions. I have determined that my decision is consistent with all laws, regulations and agency policy. The following summarizes findings required by major environmental laws:

### 1. NATIONAL FOREST MANAGEMENT ACT (16 USC 1600 ET SEQ.)

The National Forest Management Act (NFMA) and accompanying regulations require that several specific findings be documented at the project level. These are:

#### A. Consistency with Forest Plan (16 USC 1604(i))

The Kootenai Forest Land and Resource Management Plan (Forest Plan) establishes management direction for the

Kootenai Forest. This management direction is achieved through the establishment of Forest goals and objectives, standards and guidelines, and Management Area (MA) goals and accompanying standards and guidelines. Project implementation consistent with this direction is the process by which we move toward the desired condition described by the Forest Plan. Forest Plan direction provides the sideboards for project planning. In addition, the National Forest Management Act (NFMA) requires that all resource plans are to be consistent with the Forest Plan (16 USC 1604 (i)). The Draft EIS displays the Forest Plan and MA goals and objectives applicable to the East Reservoir project area (FEIS, Ch. 1, pgs. 11 through 12). The alternative development process and the management goals of the alternatives are described in the FEIS Chapter 2, while the environmental consequences of the alternatives in relation to the Forest Plan standards and guidelines are displayed in the FEIS Chapter 3.

**Forest Plan Amendment**

The Forest Plan states "If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for that project." With this decision I have approved four amendments to the Forest Plan.

**Project-Specific Amendment #1:** Units #40, 73T, 147, 148, 149 and 150 cannot meet MA 15 visuals direction because they are planned for regeneration treatments (seed tree & shelterwood) to exceed 40 acres either singularly or in combination with other units (USDA Forest Service 1987a, III-64-65).

Alternative 2 will reduce tree canopy from fully stocked to a seed tree prescription in concert with exceeding 40 acre limitation as directed by NFMA. Management Area 15 VQO is maximum modification. Treatment of these units supports purpose and need statement #1.

**Project Specific Amendment #2:** Unit #362 cannot meet MA 12 visuals direction because it is planned for regeneration treatment (clearcut) to exceed 40 acres (USDA Forest Service 1987a, III-48-49).

Alternative 2 will reduce tree canopy from fully stocked to a clearcut prescription in concert with exceeding 40 acre limitation as directed by NFMA. Management Area 12 VQO is "maximum modification in areas of low visual significance, modification in areas of moderate visual significance, and partial retention in areas of high visual significance, unless infeasible when attempting to meet the goals of the Management Area." Treatment of this unit supports purpose and need statement #1.

**Project Specific Amendment #3:** Units #73T and 188 cannot meet MA 16 visuals direction because they are planned for regeneration treatment (seed tree) to exceed 40 acres in combination (USDA Forest Service 1987a, III-69-70).

Alternative 2 will reduce tree canopy from fully stocked to a seed tree prescription in concert with exceeding 40 acre limitation as directed by NFMA. Management Area 16 "minimum VQO is modification." Treatment of these units supports purpose and need statement #1.

**Project Specific Amendment #4:** This alternative will require a project-specific KNFP amendment for harvest treatments in MA12 that removes hiding cover and movement corridors resulting in openings greater than 40 acres (Chapter 3, Wildlife Section for more information on hiding cover and openings). The KNFP standard for opening sizes in MA 12 is to maintain movement corridors of at least two site distances (400 feet) between openings, and generally not to exceed openings over 40 acres (KNFP p. III-49, Wildlife and Fish standards #7). Alternative 2 proposes one unit with acreage on MA12 land that result in openings that do not meet this standard. Unit 362 results in a 192 acre opening on MA12. Therefore, a site-specific KNFP amendment and Regional approval is necessary for this unit.

I have determined that these are non-significant project specific amendments, because the amendments are for this project only; only applies to the East Reservoir project area, and affects a small area. With the inclusion of these amendments, this project is consistent with Forest Plan management direction.

**Grizzly Bear**

In November 2011 the Record of Decision for the Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones (Access Amendment) was signed. The Access Amendment amended the Idaho Panhandle, Kootenai and Lolo National Forest land management plans (forest plans) to include standards for open motorized route density (OMRD), total motorized route density (TMRD), and Core area within the Selkirk and Cabinet-Yaak grizzly bear recovery zones (Access Amendment 2011 ROD, p. 5). These habitat security standards were determined through consultation with the U.S. Fish and Wildlife Service (USFWS), recommendations by the Interagency Grizzly Bear Committee (IGBC), and the research performed by grizzly bear research scientists Wayne Wakkinen (Idaho Department of Fish and Game (IDFG)) and Wayne Kasworm (USFWS). In addition, the 2011 Access Amendment also sets linear miles of open and total road

standards for areas outside the recovery zones that are experiencing recurring use by grizzly bears (i.e. BORZ) (Access Amendment 2011 ROD, p. 5). The East Reservoir Project activities fall within the range of effects analyzed in the programmatic BO for the 2011 Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones and therefore, in itself, is not likely to contribute to the loss of grizzly bears from the Tobacco BORZ. In their letter dated August 8, 2013, the U.S. Fish and Wildlife Service concurred with this finding.

### **Soil and Water Resources**

NFMA requires that timber will be harvested from NFS lands only where soil, slope, or other watershed conditions will not be irreversibly damaged - 16 USC 1604(g)(3)(E)(i). All activities proposed are consistent with this direction.

The Forest Plan states that project plans for activities requiring the use of ground-based equipment will establish standards for the area allocated to skid trails, landings, temporary roads or similar areas of concentrated equipment use (USDA Forest Service 1987a). None of the activities will exceed the Regional Soil Quality Standards for detrimentally disturbed soils (FSM R1 Supplement 2500-99-1). The project soils analysis found that the amount of cumulative detrimental soil disturbance is below the regional guideline of 15% (FEIS pg. 3-136).

The proposed project is consistent with the goals, objectives and standards for soil and water resources set forth in the Kootenai Forest Plan because project mitigation and BMPs have been included to protect soil and water resources. The BMPs include Soil and Water Conservation Practices at a minimum to control non-point source pollution and protect soil and water resources from permanent damage. The 2002 KNF Monitoring Report (USDA Forest Service 2003) states that monitoring between 1990 and 2002 shows that 94% of the BMPs implemented during that time were effective. Each of the alternatives will follow INFS standards and guidelines for any activities in riparian areas.

### **Old Growth**

Alternative 2 with modifications does propose fuel activities in old growth. Alternative 2 maintains fuel treatments (approx. 173 ac) in some old growth such as in VRU 2. The purpose of prescribed fire in old growth, as identified in the KNFP, is to maintain old growth characteristics. These will occur in dryland old growth such as south aspects of VRU2 and VRU3. Treatments are designed to reduce ladder fuels via a combination of slashing and prescribed burning. By reducing ladder fuels and surface fuels the treatments are expected to maintain or enhance some of the dryland old growth attributes and help ensure the survivability of the old, large diameter trees in these individual stands. The overall goal is to work towards returning these stands to their appropriate fire regime and increase fire resiliency.

The project maintains 12% of designated and undesignated old growth in the project area, well distributed across dominate habitat types of suitable National Forest acres below 5,500 feet elevation, and has been designed to conserve old growth attributes wherever they exist outside of old growth management areas. All alternatives will maintain a sufficient amount and distribution of old growth forest habitat as directed by the Kootenai Forest Plan. The 2011 Forest Plan Monitoring Report (FY2010, August 2011) indicates the KNF has 1,869,222 acres below 5,500 feet elevation (minus lakes and highways). Using the stand-level data, there are currently 201,577 acres or 10.8% of KNF acres below 5,500 feet that are OG (designated or undesignated). An additional 97,717 acres are replacement old growth (designated and undesignated). Forestwide, OG or ROG on the KNF totals 299,294 acres or 16.0% of acres below 5,500 feet based on the stand-level data.

### **B. Suitability for Timber Production**

No timber harvest, other than salvage sales or sales to protect other multiple-use values, shall occur on lands not suited for timber production { 16 USC 1604(k)}.

**Determination that lands are suitable:** All acres proposed for harvest in the selected alternative were reviewed by a certified silviculturist and determined to be suitable for timber production and capable of being regenerated within five years of timber harvest (FEIS, Ch. 3, page 19).

Analysis of current and historical regeneration data for the project area supports the conclusion that adequate stocking of the proposed harvest units is assured with site-preparation efforts occurring in a timely manner following harvest (FEIS, Ch. 3, page 36).

### **C. Timber Harvest on National Forest System Lands**

A Responsible Official may authorize site-specific projects and activities to harvest timber on National Forest System lands only where:

1. Soil, slope, or other watershed conditions will not be irreversibly damaged - 16 USC 1604(g)(3)(E)(i). The

selected alternative will avoid impairment of soils. This determination is supported by the disclosures in FEIS, Ch. 3, Soils Resource, page 73 and the application of Best Management Practices contained in the Soil and Water Conservation Practices Handbook 2509.22 (USDA Forest Service 1988) to prevent the loss of soil. Documentation of the effects of the selected alternative to site productivity and soil and water resources are contained in the soils analysis and the Project File. The estimated cumulative disturbance by harvest unit ranges from 0-15%, meeting regional guidelines limiting detrimental disturbance to 15%. Mitigation measures, including using existing skid trails and ripping and seeding landings and skid trails, are prescribed to ensure that all units will meet the regional standard.

Watershed rehabilitation activities are designed to improve the overall conditions of the watershed.

2. **There is assurance that the lands can be adequately restocked within five years after final regeneration harvest (16 USC 1604(g)(3)(E)(ii).** The knowledge and technology currently exists to adequately restock the harvested areas and is documented in the vegetation analysis (FEIS, Ch. 3, page 19) and project file.
3. **Streams, streambanks, shorelines, lakes, wetlands, and other bodies of water are protected from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment where harvests are likely to seriously and adversely affect water conditions or fish habitat - 16 USC 1604(g)(3)(E)(iii).** Alternative 2 with modifications meets all Forest Plan standards as amended by INFS (FEIS, Ch. 3, page 128, 169). All streams and wetlands will be buffered with riparian habitat conservation areas (RHCAs) as directed by INFS. Undersized culverts on haul routes will be replaced during the dry season to avoid sediment introduction in to streams when bull trout eggs will be vulnerable to smothering by sediment.
4. **The harvesting system to be used is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber - 16 USC 1604(g)(3)(E)(iv).** The decision to implement the selected alternative is based on a variety of reasons as discussed earlier in this decision, not solely on economics. Economics was but one of the many factor which I considered.

#### D. Clearcutting and Even-aged Management

A Responsible Official may authorize projects and activities on National Forest system lands using cutting methods, such as clearcutting, seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an even-aged stand of timber, only where:

1. **For clearcutting, it is the optimum method; or where seed tree, shelterwood, and other cuts are determined to be appropriate to meeting the objectives and requirements of the relevant plan (16 USC 1604(g)(3)(F)(i)).** I have determined that clearcutting is the optimal method of treatment for all or portions of Units 41, 61, 68, 362, 363, 364, 365, 366, 367, 367A, 368A and 368B, in the selected alternative. I have also determined that prescribing other even-aged systems under the selected alternative is appropriate for all or portions of Units 1A, 2, 3, 3C, 6, 7, 8, 9, 10, 11, 12, 13, 14, 14A, 16, 18, 19, 20, 21, 36, 39, 40, 44, 45A, 45B, 46, 47, 51, 52A, 53, 54, 59, 62, 64, 64A, 64B, 69, 70, 70T, 71, 72, 73T, 75, 80, 81, 82, 141, 142, 143A, 144S, 144T, 147, 148, 149, 150, 151, 158, 159A, 170, 185, 185N, 188, 193, 207, 208, 214 and 219. My determination is based upon field reviews; discussion of alternative silvicultural systems, prescriptions and the use of even-aged management found in the diagnosis (FEIS, Ch. 3, pages 58, 59, project file); the evaluation of effects found in Chapter 3 of the FEIS; and the Forest Vegetation section of the project file.
2. **The interdisciplinary review has been completed and the potential environmental, biological, aesthetic, engineering, and economic impacts have been assessed on each advertised sale area and the cutting methods are consistent with the multiple use of the general area (16 USC 1604 (g)(3)(F)(ii)).** As discussed in the FEIS, the environmental analyses were completed by an interdisciplinary team (see list of preparers in Chapter 4 of the FEIS). The cutting methods are consistent with the Forest Plan goals and objectives for the affected MAs (FEIS, Ch. 1, Page 11 – 12; Ch. 2, pages 9 to 12; Ch. 3, Page 59).
3. **Cut blocks, patches, or strips are shaped and blended to the extent practicable with the natural terrain (16 USC 1604 (g)(3)(F)(iii)).** Alternative 2 with modifications does not meet Forest Plan visual quality objectives (VQOs) in six regeneration units. See Scenic Resource analysis, Chapter 3 of the FEIS, pages 362 to 377. These openings are needed to meet the purpose and need of this project which include:
  - a. Re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change;
  - b. Create a heterogeneous landscape that provides a variety of habitats to sustain populations of terrestrial and aquatic species;
  - c. Reduce hazardous fuels adjacent to private property and across the landscape while re-introducing fire to the ecosystem.

Three project specific Forest Plan amendments for visual quality objectives will be needed to accomplish this goal (FEIS, Ch. 2, pg. 20).

4. **Cuts are carried out according to the maximum size limit requirements for areas to be cut during one**



**harvest operation (16 USC 1604 (g)(3)(F)(iv)).** Alternative 2 with Modifications does propose regeneration units with openings that exceed 40 acres in size (FEIS, Ch. 2, Table 2.13). These larger openings are needed to trend the landscape towards a more desirable pattern of patch sizes that mimics natural processes and restores historical patterns of patch size (DEIS, pp.23-25; Vegetation Report, Desired Condition, VRU 4,5 and 7); create a pattern of fuel treatments at a landscape scale that is likely to disrupt large fire growth and spread and assist in the efficacy of suppression efforts and design fuel treatments to provide a fuel break immediately adjacent to a major power transmission line (DEIS, Fire and Fuels Report, p.182); create openings that reduce edge effect and reduce fragmentation, which can result from more numerous treatment areas and still achieve the same objectives (DEIS, Wildlife Report, p. 224, 301 and 308). Regional Forest approval will be needed to exceed NFMA opening requirements plus a project specific amendment for harvest treatments in MA 12 that remove hiding cover and movement corridors resulting in openings greater than 40 acres (FEIS, Ch. 2, pg. 20).

- 5. Timber cuts are carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, esthetic resources, cultural and historic resources, and the regeneration of timber resources (16 USC 1604 (g)(3)(F)(v)).** The timber harvest conducted under the selected alternative provides the necessary protection for the above resources. This determination is supported by disclosures in Chapter 3 of the FEIS. The standards and guidelines contained in the Forest Plan are designed to provide the desired effects of management practices on the other resource values. Alternative 2 with modifications meets or exceeds applicable standards and guidelines, as noted under "Consistency with Forest Plan" previously in this section. My consideration of these factors is documented throughout Chapters 2 and 3 of the FEIS and the project file.

#### E. Sensitive Species

NFMA provides direction applicable to sensitive species. In making my decision, I have reviewed the analysis and projected effects on all sensitive species listed as possibly occurring on the Kootenai National Forest (FEIS, Ch. 3, Wildlife Resource pgs. 246 -321; Fisheries and Aquatic Species Resources, pg. 104; 123 - 131; and PTES Plants pg. 191, 192 - 199). The statement of findings for this project are as follows:

- **No impact** on the Coeur d'Alene salamander, common loon, harlequin duck, northern bog lemming, northern leopard frog, peregrine falcon, and all other PTES plant species not listed under the "may impact" section below.
- **May impact individuals or habitat, but would not contribute to a trend towards federal listing or cause loss of viability to the population of species** for the bald eagle, bighorn sheep, black-backed woodpecker, fisher, flammulated owl, Townsend's big-eared bat, western toad, westslope cutthroat trout, western pearlshell mussels, gray wolf, *Allium acuminatum* (taper-tipped onion), *Botrychium ascendens* (upswept moonwort), *Botrychium crenulatum* (wavy moonwort), *Clarkia rhomboidea* (common clarkia), *Heterocodon rariflorum* (western pearl flower), *Phegopteris connectilis* (northern beechfern), *Cypripedium fasciculatum* (clustered lady's-slipper) and *Collema curtisporum* (lichen).

I concur with the findings documented for these species.

## 2. THE CLEAN WATER ACT AND STATE WATER QUALITY STANDARDS

Beneficial uses of the East Reservoir project area include human uses such as drinking water, irrigation and recreation, as well as protection of fisheries and aquatic life. I believe that the selected alternative complies with applicable Clean Water Act and Montana State Water Quality standards and maintains beneficial uses through the application of BMPs and other design features as listed in FEIS Appendix A. These beneficial uses in the East Reservoir project area will be maintained as a result of the application of general and site-specific Best Management Practices (BMPs) contained in the Soil and Water Conservation Practices Handbook 2509.22 (USDA Forest Service 1988) (FEIS Appendix C) as well as other protective design features. These include, but are not limited to: 1) harvest will not occur in Riparian Habitat Conservation Areas (RHCAs); 2) temporary road construction will utilize BMPs to reduce erosion and will be recontoured following harvest; 3) haul road maintenance will address currently poor road drainage and will be timed to occur during drier months to avoid sediment mobility during rain events; 4) ground-based logging (approximately 91% of this project) is restricted to sustained slopes of 40% or less and measurable effects to peak flows are unlikely due to application of RHCA buffers and BMPs; approximately 37% required winter harvest; and 5) proposed actions are in compliance and will meet Inland Native Fish Strategy (INFS) standards and guidelines. Specific practices are described in detail in Appendix 25 of the Forest Plan.

As required by the Clean Water Act, the Montana Department of Environmental Quality (MDEQ) has published a list of streams and portions of streams where the state has identified water quality concerns. The FS and MDEQ have a policy that MDEQ will be notified when activities are proposed in watersheds that are on the 303(d) list.

EPA comments (Letter #3) are displayed and addressed in the Appendix 5 of this document. Ongoing and project specific water quality monitoring is displayed in the draft ROD Appendix 3. This monitoring includes BMP

Implementation and Effectiveness Reviews. These steps will document the results of the protective measures employed in this project and serve as ongoing monitoring of their effectiveness in protecting water quality and downstream beneficial uses.

### **3. THE CLEAN AIR ACT**

Upon review of the FEIS (Ch. 3, Air Quality, pgs. 355 to 358), I find that the selected alternative will be coordinated to meet the requirements of the State Implementation Plans, Smoke Management Plan, and Federal air quality requirements.

### **4. THE ENDANGERED SPECIES ACT (16 USC 1531 ET. SEQ.)**

As required by the Endangered Species Act, biological assessments were prepared addressing the potential impacts to threatened or endangered species utilizing the project area. The analyses concluded that this project will have **no effect** on water howellia, Spalding's catchfly, bull trout or white sturgeon.

A biological assessment was submitted to FWS for determination of concurrence on September 11, 2012 (revised May 31, 2013). Through consultation, the FWS concurred that the project **may affect, but is not likely to adversely affect** the grizzly bear, Canada lynx or designated critical lynx habitat, and will not jeopardized the continued existence of the proposed threatened wolverine. The gray wolf was removed from the List of Endangered and Threatened Wildlife effective May 4, 2009 (Federal Register Vol. 74, No. 62, pp. 15123-15188, April 2, 2009). Concurrence was received on August 8, 2013.

### **5. NATIONAL HISTORIC PRESERVATION ACT, AMERICAN INDIAN RELIGIOUS FREEDOM ACT AND NATIVE AMERICAN GRAVE PROTECTION ACT**

Heritage resource inventories have been completed on all areas to be impacted by ground-disturbing activities. No heritage resources are expected to be affected by this action. Recognizing that the potential exists for unidentified sites to be encountered and disturbed during project activity, contract provision B(T) 6.24# will be included in all timber sale contracts. This provision allows the Forest Service to unilaterally modify or cancel a contract to protect cultural resources regardless of when they are identified. This provision will be used if a site were discovered after a harvest operation had begun.

### **6. GOVERNMENT TO GOVERNMENT RELATIONS**

The Forest Service consulted with the Confederated Salish and Kootenai Tribes and Kootenai Tribe of Idaho during the analysis process. The intent of consultation has been to remain informed about Tribal concerns regarding American Indian Religious Freedom Act (AIRFA) and other tribal issues. In addition, the Salish (Flathead), Kootenai and Upper Pend d'Oreilles have rights under the Hellgate Treaty of 1855 (July 16, 1855). These rights include the "right of taking fish at all usual and accustomed places, in common with citizens of the Territory, and of erecting temporary buildings for curing; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land." The federal government has trust responsibilities to Tribes under a government-to-government relationship to insure that the Tribes' reserved rights are protected. Consultation with the tribes throughout the project planning helped insure that these trust responsibilities were met.

### **7. ENVIRONMENTAL JUSTICE**

I have considered the effects of this project on low income and minority populations and concluded that this project is consistent with the intent of the Environmental Justice Act of 1994 (EO 12898). Representatives from low income and minority populations were notified of this project through the public participation process and no concerns were received. This project was designed to contribute to the economic wellbeing of local communities (draft ROD Section V, purpose and need, and FEIS Chapter 3 Economics Analysis and Required Disclosures). Resource analysis disclosed no disproportionate effects to low income or minority populations.

### **8. MIGRATORY BIRD TREATY ACT**

On January 10, 2001, President Clinton signed an Executive Order outlining responsibilities of federal agencies to protect migratory birds. Upon review of the effects analysis regarding neotropical migratory birds in the FEIS, Ch. 3, pg. 322 - 323, I find that the selected alternative complies with this Executive Order.

### **9. ADMINISTRATION of the FOREST DEVELOPMENT TRANSPORTATION SYSTEM – ROADS POLICY - 36 CFR PART 212 ET AL. (PUBLISHED in the FEDERAL REGISTER ON JAN. 12, 2001).**

A travel analysis process (TAP) has been prepared for the East Reservoir project area (in the project file). I have determined that the selected alternative, which includes the construction of approximately 9 miles of new permanent road and approximately 4 miles of temporary road, as well as the storage or decommissioning of approximately 27 miles of unneeded road, complies with the Roads Policy (DEIS, Chapter 2, Tables 2.9 and 2.10A).

**10. NATIONAL FIRE PLAN**

The proposed action for the East Reservoir project responds to the intent of the National Fire Plan (FEIS, Ch. 3, pg. 170). I have determined that the selected alternative meets the goals and objectives of the National Fire Plan to: 1) reduce the number of small fires that become large, 2) reduce the threat to life and property from catastrophic wildfire, 3) increase firefighter safety, and 4) restore natural ecological systems to minimize uncharacteristically intense fires.

**XI. OBJECTION PROVISIONS and IMPLEMENTATION****OBJECTION PROVISIONS**

Objections will only be accepted from those who have previously submitted specific written comments regarding the proposed project during scoping or other designated opportunity for public comment in accordance with §218.5(a). Issue raised in objections must be based on previously submitted timely, specific written comments regarding the proposed project unless based on new information arising after the designated comment opportunities.

Objections, including attachments, must be filed via mail, fax, email, hand-delivery, express delivery, or messenger service (Monday through Friday, 8:00 a.m. to 4:30 p.m., excluding holidays) to:

USDA Forest Service Northern Region  
ATTN: Reviewing Officer, Faye Krueger  
P. O. Box 7669  
Missoula, Montana 59807-7669  
FAX (406) 329-3411  
Email: [appeals-northern-regional-office@fs.fed.us](mailto:appeals-northern-regional-office@fs.fed.us).

Objections must be submitted within 45 calendar days following the publication of this notice in the Daily Inter Lake (newspaper of record). The publication date in the newspaper of record is the exclusive means for calculating the time to file an objection. Those wishing to object should not rely upon dates or timeframe information provided by any other source. The regulations prohibit extending the time to file an objection.

The objection must contain the minimum content requirements specified in §218.8(d) and incorporation of documents by reference is permitted only as provided in §218.8(b). It is the objector's responsibility to ensure timely filing of a written objection with the reviewing officer pursuant to §218.9. All objections are available for public inspection during and after the objection process.

At a minimum an objection must include the following (36 CFR 218.8(d)):

- 1) The objector's name and address, with a telephone number, if available;
- 2) A signature or other verification of authorship upon request (a scanned signature for Email may be filed with the objection);
- 3) When multiple names are listed on an objection, identification of the lead objector (verification of the identity of the lead objector shall be provided upon request);
- 4) The name of the proposed project, the name and title of the Responsible Official, and the name(s) of the National Forest(s) and/or Ranger District(s) on which the proposed project will be implemented;
- 5) A description of those aspects of the proposed project addressed by the objection, including specific issues related to the proposed project if applicable, how the objector believes the environmental analysis or draft decision specifically violates law, regulation, or policy; suggested remedies that would resolve the objection; supporting reasons for the reviewing officer to consider; and
- 6) A statement that demonstrates connection between prior specific written comments on the particular proposed project or activity and the content of the objection.

The Responsible Official for this project is Acting Kootenai Forest Supervisor Pamela J. Gardner.

Copies of the East Reservoir DEIS are available at <http://www.fs.fed.us/r1/kootenai/projects/projects/index.shtml>. These documents are also available in other formats upon request. For more information, or questions concerning this project or the comment process, please contact Libby District, Denise Beck, (406) 293-7773, Libby, Montana, 59923

**2. IMPLEMENTATION**

If no objection is received, implementation of this decision may occur on, but not before, five business days from the close of the objection filing period. If an objection is received, implementation may not occur for 15 days following the date of objection disposition.

The selected alternative will result in several timber sale projects, one of which is planned for bid in the spring of 2014. Harvest is expected to be completed by 2019, with slash disposal and reforestation activities completed by

2021. Fuels treatments are anticipated to be accomplished by 2022 if funding is obtained. Typically, BMP work on haul roads will be accomplished prior to haul of timber products. Precommercial thinning activities are expected to be accomplished by 2025.

## Appendix 1 – Treatment Tables

## Timber Harvest Treatment Summary of the Selected Alternative 2 with Modifications

| UNIT | ACRES | TREATMENT             | MA             | LOGGING SYSTEM  |
|------|-------|-----------------------|----------------|-----------------|
| 1    | 50    | IMP/S/GP              | 11, 16         | Winter Tractor  |
| 1A   | 11    | SW/S/GP               | 11, 16         | Winter Tractor  |
| 2    | 13    | ST/S/UB/PLT           | 11, 16         | Winter Tractor  |
| 2B   | 48    | IMP/S/GP              | 11             | Winter Tractor  |
| 2C   | 9     | IMP/S/GP              | 11, 12, 24     | Winter Tractor  |
| 2D   | 67    | IMP/S/GP              | 11             | Winter Tractor  |
| 3    | 27    | ST/S/UB/PLT           | 11, 16         | Winter Tractor  |
| 3A   | 26    | IMP/S/GP              | 11             | Winter Tractor  |
| 3B   | 37    | IMP/S/GP              | 11             | Skyline         |
| 3C   | 13    | ST/S/GP/PLT           | 11             | Tractor         |
| 4    | 46    | IMP/S/GP/PLT          | 11             | Tractor         |
| 5    | 5     | IMP/S                 | 16, 17         | Tractor         |
| 6    | 11    | ST/S/GP/PLT           | 16, 17         | Tractor         |
| 7    | 19    | ST/S/GP/PLT           | 16, 17         | Winter Tractor  |
| 8    | 13    | ST/S/GP/PLT           | 16             | Tractor         |
| 9    | 151   | IMP-SW/S/UB/PLT       | 10, 11         | Winter Tractor  |
| 10   | 160   | IMP-SW/S/UB/PLT       | 10, 11         | Winter Tractor  |
| 11   | 102   | IMP-SW/S/UB/PLT       | 11             | Winter Tractor  |
| 12   | 119   | IMP-SW/S/GP/PLT       | 15, 17         | Tractor         |
| 13   | 22    | ST/S/GP/PLT           | 15             | Winter Tractor  |
| 14   | 40    | ST/S/GP/PLT           | 15             | Winter Tractor  |
| 14A  | 26    | SW/S/GP               | 15             | Tractor         |
| 15   | 22    | IMP/S/GP/PLT          | 17             | Winter Tractor  |
| 16   | 29    | Irregular SW/S/GP/PLT | 17             | Tractor         |
| 17   | 68    | IMP/GP                | 17             | Winter Tractor  |
| 18   | 40    | Irregular SW/GP/PLT   | 15, 16, 17     | Tractor         |
| 18A  | 20    | IMP/S/GP              | 16, 24         | Tractor         |
| 19   | 32    | IMP-SW/S/GP/PLT       | 11             | Tractor         |
| 20   | 41    | IMP-SW/S/GP/PLT       | 11             | Tractor         |
| 21   | 76    | IMP-SW/S/GP/PLT       | 11             | Tractor         |
| 22   | 83    | IMP/S/GP              | 17             | Tractor         |
| 23   | 146   | IMP/S/GP              | 15, 17         | Tractor         |
| 24   | 40    | IMP/S/GP              | 15             | Winter Tractor  |
| 25   | 139   | IMP/S/UB              | 15             | Tractor         |
| 26   | 29    | IMP/S/GP              | 17             | Winter Tractor  |
| 27   | 45    | IMP/S/GP              | 5, 17          | Tractor         |
| 28   | 31    | IMP/S/GP              | 17             | Winter Tractor  |
| 29   | 54    | IMP/S/GP              | 11, 16         | Tractor         |
| 30   | 62    | IMP/S/GP              | 11, 18         | Tractor         |
| 31   | 698   | IMP/S/UB              | 11, 12, 18, 24 | Tractor         |
| 32   | 75    | IMP/S/GP              | 12             | Tractor         |
| 33   | 85    | San-Salvage/GP        | 15, 17         | Tractor         |
| 34   | 144   | San-Salvage/GP        | 17             | Tractor         |
| 36   | 40    | ST/S/GP/PLT           | 15             | Tractor         |
| 39   | 40    | ST/S/GP/PLT           | 15             | Tractor         |
| 40   | 156   | ST/S/GP/PLT           | 15             | Tractor         |
| 41   | 40    | CCR/S/GP/PLT          | 15             | Tractor         |
| 42   | 31    | IMP/S/GP              | 11, 12         | Tractor         |
| 43   | 26    | IMP/S/GP              | 11, 12         | Tractor         |
| 44   | 28    | SW/S/GP/PLT           | 11             | Tractor         |
| 45A  | 105   | IMP-SW/S/GP/PLT       | 11, 12         | Tractor/Skyline |
| 45B  | 39    | ST/S/UB/PLT           | 12             | Tractor         |
| 46   | 37    | ST/S/GP/PLT           | 12             | Skyline         |
| 47   | 40    | ST/S/GP/PLT           | 12             | Tractor         |
| 49   | 64    | IMP/S/GP              | 11, 12, 19     | Tractor         |
| 51   | 7     | ST/S/GP/PLT           | 12             | Tractor         |
| 52A  | 24    | ST/S/GP/PLT           | 12             | Tractor         |
| 53   | 40    | ST/S/GP/PLT           | 11, 12         | Tractor         |

| UNIT | ACRES | TREATMENT        | MA         | LOGGING SYSTEM  |
|------|-------|------------------|------------|-----------------|
| 54   | 9     | ST/S/GP/PLT      | 15         | Tractor         |
| 55   | 40    | IMP/S/UB         | 11, 18     | Tractor         |
| 56   | 207   | IMP/S/UB         | 11         | Tractor/Skyline |
| 59   | 39    | ST/S/UB/PLT      | 15         | Tractor         |
| 61   | 19    | CCR/S/UB/PLT     | 15         | Tractor         |
| 62   | 77    | ST/S/UB/PLT      | 15         | Tractor         |
| 62A  | 11    | San-Salvage/GP   | 15         | Tractor         |
| 62B  | 20    | San-Salvage/GP   | 15         | Tractor         |
| 64   | 8     | ST/S/UB/PLT      | 15         | Winter Tractor  |
| 64A  | 28    | ST/S/UB/PLT      | 15         | Tractor         |
| 64B  | 10    | ST/S/UB/PLT      | 15         | Tractor         |
| 68   | 25    | CCR/S/GP/PLT     | 16         | Skyline         |
| 69   | 16    | ST/S/UB/PLT      | 16         | Skyline         |
| 70   | 14    | ST/S/UB/PLT      | 16         | Tractor         |
| 70T  | 9     | ST/S/GP/PLT      | 16         | Winter Tractor  |
| 71   | 18    | ST/S/GP/PLT      | 16         | Tractor         |
| 72   | 12    | ST/S/GP/PLT      | 16         | Tractor         |
| 73T  | 31    | ST/S/GP/PLT      | 16         | Winter Tractor  |
| 75   | 36    | SW/S/UB/PLT      | 15         | Skyline         |
| 80   | 110   | ST-SW/S/GP/PLT   | 15, 16     | Winter Tractor  |
| 81   | 36    | ST/S/GP/PLT      | 16         | Winter Tractor  |
| 82   | 25    | ST-SW/S/GP/PLT   | 16         | Tractor         |
| 135  | 16    | IMP/S/UB         | 16         | Tractor         |
| 141  | 24    | SW/S/UB/PLT      | 16         | Skyline         |
| 142  | 9     | ST/S/UB/PLT      | 16         | Skyline         |
| 143A | 18    | SW/S/GP/PLT      | 16         | Tractor         |
| 144S | 22    | ST/S/UB/PLT      | 15, 16     | Skyline         |
| 144T | 18    | ST/S/UB/PLT      | 15, 16, 19 | Tractor         |
| 147  | 93    | ST/S/UB/PLT      | 15         | Tractor/Skyline |
| 148  | 77    | ST/S/UB/PLT      | 11, 15     | Skyline         |
| 149  | 65    | ST/S/UB/PLT      | 15         | Tractor/Skyline |
| 150  | 103   | ST/S/UB/PLT      | 15         | Tractor/Skyline |
| 151  | 40    | ST/S/GP/PLT      | 15         | Tractor         |
| 157  | 54    | IMP/S/UB         | 11         | Winter Tractor  |
| 158  | 143   | IMP-SW/S/GP      | 10, 11     | Winter Tractor  |
| 159A | 18    | ST/S/GP/PLT      | 15         | Winter Tractor  |
| 170  | 97    | SW/S/UB/PLT      | 15         | Skyline         |
| 173  | 18    | IMP/S/UB         | 5, 19      | Skyline         |
| 174  | 29    | IMP/S/UB         | 11         | Skyline         |
| 176  | 15    | IMP/S/UB         | 11         | Skyline         |
| 179  | 76    | IMP/S/GP         | 11         | Tractor         |
| 182  | 50    | IMP/S/UB         | 11         | Tractor         |
| 183  | 68    | IMP/S/GP         | 6, 16, 17  | Winter Tractor  |
| 185  | 27    | ST/S/GP/PLT      | 15         | Tractor         |
| 185N | 22    | ST/S/GP/PLT      | 15         | Tractor         |
| 188  | 40    | ST/S/UB/PLT      | 15, 16     | Skyline         |
| 190  | 43    | IMP/S/GP         | 15, 17     | Winter Tractor  |
| 190A | 44    | San-Salvage/S/GP | 15, 17     | Winter Tractor  |
| 192  | 40    | IMP/S/UB         | 17         | Skyline         |
| 193  | 17    | SW/GP/PLT        | 11         | Tractor         |
| 194S | 36    | IMP/S/UB         | 11, 18     | Skyline         |
| 194T | 31    | IMP/S/GP         | 10, 11, 18 | Winter Tractor  |
| 195  | 28    | San-Salvage/S/GP | 16         | Tractor         |
| 196  | 14    | IMP/S/GP         | 11         | Winter Tractor  |
| 197  | 24    | IMP/S/GP         | 11, 18     | Tractor         |
| 203  | 59    | IMP/S/GP         | 12         | Tractor         |
| 205  | 34    | IMP/S/GP         | 12, 19     | Tractor         |
| 207  | 40    | SW/S/GP/PLT      | 15, 16, 17 | Tractor         |
| 208  | 40    | ST/S/GP/PLT      | 15, 16, 17 | Tractor         |
| 209  | 24    | IMP/S/GP         | 15         | Tractor         |
| 214  | 6     | ST/S/GP/PLT      | 12         | Tractor         |
| 219  | 38    | ST/S/GP/PLT      | 12         | Tractor         |

| UNIT                      | ACRES | TREATMENT    | MA         | LOGGING SYSTEM |
|---------------------------|-------|--------------|------------|----------------|
| 219A                      | 26    | CT/YT        | 12         | Tractor        |
| 305                       | 43    | CT/YT        | 11         | Tractor        |
| 306                       | 57    | CT/YT        | 11         | Tractor        |
| 307                       | 305   | CT/YT        | 11         | Tractor        |
| 311                       | 9     | CT/YT        | 11, 15     | Tractor        |
| 317                       | 63    | CT/YT        | 15         | Tractor        |
| 318                       | 131   | CT/YT        | 15         | Tractor        |
| 319                       | 17    | CT/YT        | 15         | Tractor        |
| 327                       | 46    | CT/YT        | 12         | Tractor        |
| 328                       | 31    | CT/YT        | 12         | Tractor        |
| 330                       | 9     | CT/YT        | 15         | Tractor        |
| 331                       | 16    | CT/YT        | 15         | Tractor        |
| 332                       | 10    | CT/YT        | 15         | Tractor        |
| 333                       | 14    | CT/YT        | 15         | Tractor        |
| 334                       | 22    | CT/YT        | 15         | Tractor        |
| 335                       | 20    | CT/YT        | 15         | Tractor        |
| 337                       | 272   | CT/YT        | 11, 12, 15 | Tractor        |
| 339                       | 89    | CT/YT        | 15         | Tractor        |
| 340                       | 266   | CT/YT        | 15, 16     | Tractor        |
| 343                       | 100   | CT/YT        | 15         | Tractor        |
| 344                       | 73    | CT/YT        | 15         | Tractor        |
| 345                       | 45    | CT/YT        | 15         | Tractor        |
| 346                       | 11    | CT/YT        | 15         | Tractor        |
| 347                       | 520   | CT/YT        | 11, 12     | Tractor        |
| 348                       | 14    | CT/YT        | 15         | Tractor        |
| 349                       | 21    | CT/YT        | 12         | Tractor        |
| 350                       | 26    | CT/YT        | 15         | Tractor        |
| 362                       | 192   | CCR/S/GP/PLT | 12         | Tractor        |
| 363                       | 40    | CCR/S/GP/PLT | 12         | Tractor        |
| 364                       | 33    | CCR/S/UB/PLT | 12         | Tractor        |
| 365                       | 25    | CCR/S/UB/PLT | 12         | Tractor        |
| 366                       | 6     | CCR/S/UB/PLT | 12         | Tractor        |
| 367                       | 38    | CCR/S/UB/PLT | 12         | Tractor        |
| 367A                      | 40    | CCR/S/UB/PLT | 12         | Tractor        |
| 368A                      | 10    | CCR/S/GP/PLT | 12         | Tractor        |
| 368B                      | 6     | CCR/S/GP/PLT | 12         | Tractor        |
| 368C                      | 7     | CCR/S/GP/PLT | 12         | Tractor        |
| 369                       | 40    | CCR/S/GP/PLT | 12         | Tractor        |
| <b>TOTAL = 8,845acres</b> |       |              |            |                |

Key: GS/IMP = Group Select/Improvement IMP = Improvement Cut ST = Seed Tree w/Reserves  
 CC = Clearcut CCR = Clearcut w/Reserves SW = Shelterwood w/Reserves PLT = Plant  
 S = Slashing UB = Underburning GP = Grapple Pile San-Salvage = Sanitation-Salvage

### Alternative 2 with Modifications - Precommercial Thinning

| UNIT # | ACRES |  | UNIT # | ACRES |  | UNIT # | ACRES |  | UNIT # | ACRES |
|--------|-------|--|--------|-------|--|--------|-------|--|--------|-------|
| 1      | 30    |  | 50     | 55    |  | 98     | 48    |  | 146    | 1     |
| 2      | 15    |  | 51     | 11    |  | 99     | 30    |  | 147    | 43    |
| 3      | 31    |  | 52     | 18    |  | 100    | 24    |  | 148    | 27    |
| 4      | 2     |  | 53     | 16    |  | 101    | 46    |  | 149    | 5     |
| 5      | 3     |  | 54     | 11    |  | 102    | 4     |  | 150    | 8     |
| 6      | 20    |  | 55     | 5     |  | 103    | 19    |  | 151    | 39    |
| 7      | 29    |  | 56     | 32    |  | 104    | 31    |  | 152    | 24    |
| 8      | 21    |  | 57     | 73    |  | 105    | 11    |  | 153    | 30    |
| 9      | 19    |  | 58     | 27    |  | 106    | 9     |  | 154    | 14    |
| 10     | 21    |  | 59     | 63    |  | 108    | 15    |  | 155    | 18    |
| 11     | 29    |  | 60     | 74    |  | 109    | 18    |  | 156    | 7     |
| 12     | 11    |  | 61     | 7     |  | 110    | 12    |  | 157    | 62    |
| 13     | 24    |  | 62     | 3     |  | 111    | 30    |  | 158    | 13    |
| 14     | 15    |  | 63     | 3     |  | 112    | 24    |  | 159    | 81    |
| 15     | 14    |  | 64     | 12    |  | 113    | 4     |  | 160    | 1     |
| 16     | 15    |  | 65     | 9     |  | 114    | 45    |  | 161    | 15    |
|        |       |  |        |       |  |        |       |  | 208    | 11    |

| UNIT # | ACRES |  | UNIT # | ACRES |  | UNIT # | ACRES |  | UNIT # | ACRES                   |
|--------|-------|--|--------|-------|--|--------|-------|--|--------|-------------------------|
| 17     | 22    |  | 66     | 8     |  | 115    | 14    |  | 162    | 6                       |
| 18     | 11    |  | 67     | 37    |  | 116    | 9     |  | 163    | 4                       |
| 19     | 19    |  | 68     | 7     |  | 117    | 16    |  | 164    | 6                       |
| 20     | 6     |  | 69     | 13    |  | 118    | 39    |  | 165    | 7                       |
| 21     | 7     |  | 70     | 43    |  | 119    | 27    |  | 166    | 5                       |
| 22     | 7     |  | 71     | 2     |  | 120    | 22    |  | 167    | 5                       |
| 23     | 2     |  | 72     | 28    |  | 121    | 16    |  | 168    | 29                      |
| 24     | 2     |  | 73     | 85    |  | 122    | 32    |  | 169    | 12                      |
| 25     | 38    |  | 74     | 15    |  | 123    | 4     |  | 170    | 32                      |
| 26     | 51    |  | 75     | 3     |  | 124    | 47    |  | 171    | 24                      |
| 27     | 25    |  | 76     | 63    |  | 125    | 9     |  | 172    | 24                      |
| 28     | 11    |  | 77     | 53    |  | 126    | 4     |  | 173    | 27                      |
| 29     | 26    |  | 78     | 34    |  | 127    | 12    |  | 174    | 16                      |
| 30     | 42    |  | 79     | 24    |  | 128    | 7     |  | 175    | 16                      |
| 31     | 25    |  | 81     | 26    |  | 129    | 25    |  | 176    | 5                       |
| 32     | 48    |  | 82     | 11    |  | 130    | 19    |  | 177    | 13                      |
| 33     | 6     |  | 83     | 31    |  | 131    | 16    |  | 178    | 29                      |
| 36     | 12    |  | 84     | 35    |  | 132    | 23    |  | 179    | 13                      |
| 37     | 7     |  | 85     | 40    |  | 133    | 27    |  | 180    | 19                      |
| 38     | 6     |  | 86     | 49    |  | 134    | 14    |  | 181    | 12                      |
| 39     | 11    |  | 87     | 35    |  | 135    | 12    |  | 182    | 27                      |
| 40     | 12    |  | 88     | 39    |  | 136    | 14    |  | 183    | 23                      |
| 41     | 14    |  | 89     | 11    |  | 137    | 6     |  | 184    | 38                      |
| 42     | 28    |  | 90     | 3     |  | 138    | 6     |  | 185    | 38                      |
| 43     | 6     |  | 91     | 16    |  | 139    | 15    |  | 186    | 24                      |
| 44     | 57    |  | 92     | 19    |  | 140    | 4     |  | 187    | 46                      |
| 45     | 13    |  | 93     | 6     |  | 141    | 20    |  | 188    | 47                      |
| 46     | 7     |  | 94     | 10    |  | 142    | 23    |  | 189    | 37                      |
| 47     | 20    |  | 95     | 3     |  | 143    | 28    |  | 190    | 24                      |
| 48     | 42    |  | 96     | 8     |  | 144    | 5     |  | 191    | 39                      |
| 49     | 44    |  | 97     | 2     |  | 145    | 4     |  | 192    | 19                      |
|        |       |  |        |       |  |        |       |  |        | <b>TOTAL = 5,563 ac</b> |

## Alternative 2 with Modifications - White Pine Daylight Thinning

| UNIT NO | LYNX HABITAT           | ACRES |   | UNIT NO | LYNX HABITAT            | ACRES |
|---------|------------------------|-------|---|---------|-------------------------|-------|
| 237     | Stand Initiation       | 21    |   | 256     | Stand Initiation        | 11    |
| 238     | Early Stand Initiation | 8     |   | 257     | Stand Initiation        | 28    |
| 239     | Stem Exclusion         | 5     |   | 258     | Stand Initiation        | 17    |
| 240     | Early Stand Initiation | 15    |   | 259     | Stand Initiation        | 24    |
| 241     | Stand Initiation       | 22    |   | 260     | Stand Initiation        | 20    |
| 242     | Stand Initiation       | 44    |   | 261     | Stand Initiation        | 39    |
| 243     | Early Stand Initiation | 2     |   | 262     | Stand Initiation        | 14    |
| 244     | Stand Initiation       | 18    |   | 263     | Stand Initiation        | 27    |
| 245     | Stand Initiation       | 14    |   | 264     | Stand Initiation        | 33    |
| 246     | Stand Initiation       | 23    |   | 265     | Stand Initiation        | 29    |
| 247     | Stand Initiation       | 17    |   | 266     | Stand Initiation        | 29    |
| 248     | Stand Initiation       | 41    |   | 267     | Early Stand Initiation  | 16    |
| 249     | Stand Initiation       | 211   |   | 268     | <b>Stand Initiation</b> | 60    |
| 250     | Stand Initiation       | 56    |   | 269     | Stand Initiation        | 24    |
| 251     | Stand Initiation       | 41    |   | 270     | Stand Initiation        | 16    |
| 252     | Stand Initiation       | 8     |   | 271     | Stand Initiation        | 36    |
| 253     | Stand Initiation       | 20    |   | 272     | Stand Initiation        | 3     |
| 254     | Early Stand Initiation | 31    |   | 273     | Stand Initiation        | 3     |
| 255     | Stand Initiation       | 34    | <b>TOTAL = 1,060 ACRES (20% = 212 ac)</b> |         |                         |       |



**Alternative 2 with Modifications – Proposed Fuel Treatment Units**

| UNIT  | ACRES | TREATMENT <sup>1</sup> | MA             |  | UNIT                       | ACRES | TREATMENT  | MA     |
|-------|-------|------------------------|----------------|--|----------------------------|-------|------------|--------|
| F1    | 174   | MFT/Burn               | 10, 11, 12, 24 |  | F13                        | 24    | Slash/Burn | 15     |
| F1A   | 17    | Slash/Burn             | 11, 30         |  | F13OG                      | 5     | MFT/Burn   | 13     |
| F1OG  | 38    | MFT/Burn               | 12             |  | F14OG                      | 43    | MFT/Burn   | 13     |
| F2    | 116   | MFT/Burn               | 11, 16         |  | F15                        | 9     | MFT/Burn   | 17     |
| F3    | 17    | MFT/Burn               | 11, 17         |  | F15OG                      | 13    | MFT/Burn   | 13     |
| F3OG  | 20    | MFT/Burn               | 13             |  | F16                        | 73    | Slash/Burn | 11, 12 |
| F4    | 17    | Slash/Burn             | 10             |  | F18                        | 568   | Burn       | 2      |
| F8    | 52    | MFT/Burn               | 10, 17         |  | F19                        | 110   | Slash/Burn | 17     |
| F11OG | 54    | Slash/Burn             | 13             |  | F45                        | 125   | Slash/Burn | 11, 12 |
| F12   | 11    | MFT/Burn               | 11             |  | <b>TOTAL = 1,486 acres</b> |       |            |        |

MFT = Mechanical Fuel Treatments

Slash = hand slashing without the potential for mechanical product removal.

**Alternative 2 with Modifications - Fuels and Wildlife Units**

| UNIT  | ACRES | TREATMENT <sup>1</sup> |  | UNIT                        | ACRES | TREATMENT             |
|-------|-------|------------------------|--|-----------------------------|-------|-----------------------|
| FW501 | 281   | Slash, Spring/Fall UB  |  | FW544                       | 576   | Slash, Spring/Fall UB |
| FW502 | 159   | Slash, Spring/Fall UB  |  | FW545                       | 429   | Spring/Fall UB        |
| FW503 | 215   | Slash, Spring/Fall UB  |  | FW577                       | 147   | Slash, Spring/Fall UB |
| FW509 | 32    | Slash, Spring/Fall UB  |  | FW589                       | 335   | Spring/Fall UB        |
| FW511 | 34    | Slash, Spring/Fall UB  |  | FW5109                      | 170   | Slash, Spring/Fall UB |
| FW512 | 51    | Slash, Spring/Fall UB  |  | FW5111                      | 46    | Slash, Spring/Fall UB |
| FW516 | 39    | Slash, Spring/Fall UB  |  | FW5122                      | 112   | Spring/Fall UB        |
| FW521 | 41    | Slash, Spring/Fall UB  |  | FW5125                      | 14    | Slash, Spring/Fall UB |
| FW522 | 642   | Slash, Spring/Fall UB\ |  | FW50601                     | 294   | Slash, Spring/Fall UB |
| FW524 | 484   | Slash, Spring/Fall UB  |  | FW50602                     | 913   | Slash, Spring/Fall UB |
| FW525 | 84    | Slash, Spring/Fall UB  |  | FW51101                     | 575   | Slash, Spring/Fall UB |
| FW533 | 214   | Slash, Spring/Fall UB  |  | FW51102                     | 272   | Slash, Spring/Fall UB |
| FW535 | 142   | Slash, Spring/Fall UB  |  | FW51103                     | 743   | Slash, Spring/Fall UB |
| FW536 | 307   | Spring/Fall UB         |  | FW53401                     | 596   | Slash, Spring/Fall UB |
| FW539 | 121   | Slash, Spring/Fall UB  |  | FW53402                     | 581   | Slash, Spring/Fall UB |
| FW540 | 538   | Slash, Spring/Fall UB  |  | FW53403                     | 646   | Spring/Fall UB        |
| FW543 | 215   | Slash, Spring/Fall UB  |  | <b>TOTAL = 10,049 acres</b> |       |                       |

UB = Underburn

## Appendix 2 – Design Features of the Selected Alternative

Appendix 2 describes the design features and management measures that will be applied to this project to protect resources in all action alternatives.

### Appendix 2 – East Reservoir Project Management Measures & Design Features

**Trails and Roads:** Timber Sale Standard Provision B(T)6.22, Protection of Improvements, will be included in all timber sale contracts. It will require the purchaser to protect specified improvements, such as trails, roads and fences. Slash disposal adjacent to the Lake Koocanusa Scenic Byway (MSH 37) and Lake Koocanusa is critical to meeting KNFP VQOs.

**Soil:** Refer to Appendix E for specific management requirements for the soil resource.

**Sensitive Plants:** Legal and biological requirements for the conservation of endangered, threatened, proposed, candidate and sensitive plants will be met. These species have been identified in cooperation with other agencies such as the US Fish and Wildlife Service (FWS) and Montana Fish, Wildlife and Parks (FWP). Plant surveys will be completed prior to any ground-disturbing activities. Emphasis for surveys will be placed on areas with moderate-to-high potential to provide sensitive plant habitat. These surveys will be conducted by the District Botanist or a qualified biological technician. If any of these plant species are located prior to or during implementation of any management activities, the activity will be altered so that proper protection measures could be taken. Timber sale contract provision B(T)6.25, Protection of Habitat of Endangered Species, will be included in any subsequent timber sale contract. If necessary, additional modifications will occur through creation of special treatment zones or by relocating unit boundaries to avoid negative impacts. Disturbance to any sensitive plant populations observed during sale activity will be avoided through cooperation between sale administrators and sale purchaser. Surveys for PTES plants of in-stream work areas to improve pool quantity and quality will be completed before implementation.

- Retain all cottonwood, aspen and birch in all harvest units except in designated skid trails.
- Avoid burning and logging through the western pearl flower (*Heterocodon rariflorum*) population in Unit 16 by creating a special treatment zone.

**Noxious Weeds:** Noxious weeds can have a large impact on not only rare plant habitat but any native plant habitat the following measures will be used to manage concerns for the spread of noxious weeds.

- **Winter Tractor Units to Avoid Noxious Weed Spread:** Winter tractor operations for Units 2B, 2C, 2D, 3A, 9, 10, 11, 17, 28, 157, 158, 158A, 190, 194T, 196, 305, 306, 307, COE1 and COE3.
- Certified weed-free forage is required for use on all national forest lands in Montana (36 CFR 261.50)
- Treat existing noxious weeds on roads to be reconstructed or stored prior to that activity, (if possible schedule spraying two or more seasons before activities are expected to occur to reduce the amount of viable weed seed stored in the soil).
- Treat existing noxious weeds in gravel/rock pits, inspect these sources for weeds and treat before material is transported.
- Survey and pre-treat existing noxious weeds on proposed trailhead construction site, and access sites for in-stream work.
- Require weed free certified straw for all construction, reconstruction, and restoration activities.
- Seed and fertilize stored roads with certified weed free seed immediately following restoration activities.
- Limit scarification objectives to the minimal required to meet reforestation objectives.
- Pressure-wash logging equipment, road maintenance and restoration equipment before entering the analysis area.
- Require timber sale purchaser to treat existing noxious weeds along haul routes the first operational season for weed spraying (spring or early summer)
- Seed newly constructed roads, trailheads, landings and major skid trails with certified weed-free seed.
- Prevent road maintenance machinery from blading or brushing through known populations of new invaders. In areas where weeds are established, (and activities are opening and blading restricted or closed roads with significantly lesser infestations); brush and blade road systems from un-infested segments of road systems to infested areas. Limit brushing and mowing to the minimum distance and height necessary to meet safety objectives in areas of heavy weed infestations
- Minimize soil disturbance and mineral soil exposure during activities. Soil disturbance should be no more than needed to meet project objectives. This includes not exceeding recommended mineral soil exposure for site preparation in regeneration harvest units; and utilizing timing and designated skid trails to minimize mineral soil exposure in harvest units.

- Survey proposed burn units for noxious weeds. Determine the risk of weed spread with prescribed fire. If there is a risk of spread beyond the road corridor, defer burning until the weeds can be treated or ensure post treatment funding for weed control.
- Survey proposed access for mechanized in stream for noxious weeds. Determine the risk of spread with the associated activity. If there is risk of spread, pre-treat the area before activity.
- Continue to monitor/survey the analysis area for new invader weed species. Monitor weed population levels in treated areas, with particular emphasis on haul routes, stored and decommissioned roads, and landings. Retreat as funding allows.
- Treat and sign sites if new invaders are located and defer ground disturbing activities within those sites until the weed specialist determines the site is no longer a threat, and approves those activities.
- Site-specific guidelines will be followed for weed treatments within or adjacent to known sensitive plant populations. All future treatment sites will be evaluated for sensitive plant habitat suitability; suitable habitats will be surveyed as necessary prior to treatment.
- All noxious weed control activities will comply with state and local laws and agency guidelines.
- As per the 2007 KNF Invasive Plant Management EIS and ROD, all herbicides used in the analysis area will be applied according to the labeled rates and recommendations to ensure the protection of surface water, ecological integrity and public health and safety. Herbicide selection will be based on target species on the site, site factors (such as soil types, distance to water, etc.), and with the objective to minimize impacts to non-target species.
- Design road storage to allow passage of a 4-wheeler to continue treatment of hawkweeds and common tansy in the future. Hawkweed and common tansy populations will continue to expand even after the template has re-vegetated.
- Keep administrative traffic on closed roads to a minimum. Whenever possible, time activities prior to seed set of the primary weed species or emphasis weeds on a given road.
- Release bio-control agents on applicable sites, as they become available, and funding allows.
- Plan follow up noxious weed treatment the spring or early summer, following final purchaser blading of all haul roads if funds allow (this will be funded with appropriated or KV dollars).
- **Burning and Noxious Weed Spread:** A decision matrix will be developed to address weed concerns and to prioritize the units for burning based on desired objectives of the burning. This decision matrix will identify potential weed concerns and identify target habitat enhancement or fuel reduction objectives. This way weed control efforts can focus on particular species prior and post-burning.
- Design road storage to allow passage of a 4-wheeler to continue treatment of hawkweeds and common tansy in the future. Hawkweed and common tansy populations will continue to expand even after the template has re-vegetated.

#### **Burning and Noxious Weed Spread**

A decision matrix will be developed to address weed concerns and to prioritize the units for burning based on desired objectives of the burning. This decision matrix will identify potential weed concerns and identify target habitat enhancement or fuel reduction objectives. This way weed control efforts can focus on particular species prior and post-burning.

#### **Pile Burning Emissions**

The amount of smoke emissions, resulting from prescribed burning of natural and activity fuels will be mitigated by four general methods: fuel loading reduction, reduction in the amount of fuel consumed, flaming combustion optimization, and impact avoidance.

**Fuel Loading Reduction:** The KNF has encouraged, through sale contract provisions, utilization of sub-merchantable material. Purchasers may be required to pay for, and therefore encouraged to utilize, top wood smaller than the normal utilization standard. These measures help decrease the amount of woody fuel, thus reducing the amount of smoke produced during burning.

**Reduction in the Amount of Fuel Consumed:** The reduction of the amount of fuel consumed by prescribed burning will be accomplished by burning under higher fuel moisture conditions as long as it still makes these fuels less available for consumption, thereby reducing the fuel consumed. Sometimes this can be part of the resource objective to retain coarse woody debris on the site.

**Flaming Combustion Optimization:** Methods that increasing the flaming combustion phase will be used when prescribed burning is determined to be the most appropriate fuel treatment. Concentration of logging slash by whole tree yarding or excavator piling increases the amount of material consumed during flaming combustion and also allows material to be burned in the late fall when the risk of escape is low. Purchasers are required to

construct piles so they are compact and free of excess soil.

**Impact Avoidance:** Smoke impact avoidance will be accomplished through daily monitoring of airshed conditions. Burns will be coordinated with Montana/Idaho Smoke Monitoring Unit. This will help ensure smoke impacts are minimized and burning only occurs when dispersion is forecasted to be good and cumulative effects are not likely.

#### ~~~~~ **Soil and Water:**

##### **1) Timber Sale Contract Provisions to be Included**

**CT6.3** - Plan of Operations, **BT6.4**, **CT6.4** - Conduct of Logging, **BT6.42** - Skidding and yarding, **BT6.422** - Landings and Skid Trails, **BT6.6**, **CT6.6** - Erosion Prevention Control, **BT6.64** - Skid Trails and Fire Lines, **BT6.5** - Stream Course Protection, **CT6.62** - Noxious Weed Control, **BT5.2**, **CT5.2** - Specified Road Construction, **BT5.4**, **CT5.4** - Road Maintenance, **CT6.603** - Road Obliteration.

##### **2) Best Management Practices (BMPs) - Implementation of the BMPs listed in Appendix C.**

##### **3) Riparian Habitat Conservation Areas (RHCAs)**

Implementation of the KNFP RHCA widths for the units, shown in Appendix B, is required to meet KNFP standards as amended by INFS. Also if any additional streams are found during layout they will also be buffered to meet this requirement.

#### ~~~~~ **Aquatic Species**

Measures listed under soil and water, including implementation of BMPs and use of RHCAs as prescribed in INFS will protect fish.

#### ~~~~~ **Winter Tractor Units to Avoid Over 15% and DSD for Alternatives 3:**

Units: 2, 3, 7, 12, 13, 14, 15, 24, 26, 73T, 74T, 159A, 183, 190A, 305, 307, 311, 318, 319, 327, 328, 334, 335, 339, 340, 343, 344, 345, 346, 349, 350, COE4, COE5T, COE6, F1OG, and F2T1.

#### ~~~~~ **Forest Vegetation:**

In addition to the appropriate BMPs, riparian guidelines and standard contract clauses, the following management measures and monitoring will be included:

- a. All harvest units will retain 7-30 tons per acre of downed woody material (or recruitment) greater than 3" in diameter to provide nutrient recycling and habitat for mammals and invertebrates. The volume and distribution of material may be subject to specific site conditions such as within the wildland urban interface. The tons retained by VRU are described previously in Table 3.11.
- b. All harvest units will be designed to retain adequate levels of replacement snags to provide for cavity-associated wildlife species, genetic seed reservoirs, relic overstory, and long-term soil productivity. Replacement trees will be scattered throughout harvest units to the extent possible. A minimum of 8-10 replacement snags per acre will be retained. Where not consistent with your description of a clearcut with 4-8 trees retained possible within safety requirements, sound snags may be marked for retention. If they are felled for safety purposes, they will be retained on site. Silvicultural and burning prescriptions will be prepared with the goal of protecting large diameter relic trees, during site preparation and fuels treatment.
- c. A marking review will be performed by a silviculturist on a minimum of 10% of proposed units to ensure marking guides are being implemented as per the prescription.
- d. All tractor harvest units with an intermediate harvest prescription will have designated skid trails to facilitate removal of designated material while minimizing damage to less than 15% of the residual trees.
- e. Harvest treatments will be designed to mimic natural process, and marking guides will emphasize working with existing stand structures, and will not result in a uniform or evenly spaced residual stand or an evenly spaced seed trees or relic trees.
- f. If insect activity is present in the area, prescribed fire in dryland types may be postponed to a later date to give the residual trees time to recover.
- g. Spring burns in the dryland types will be implemented before the ponderosa pine and bunchgrass are actively growing to minimize damage to native grasses.
- h. Maintain old growth characteristics within old growth character stands (Green et al, 1992; USDA Forest Service, 1987a).

#### ~~~~~ **Wildlife:**

**Minimize Disturbance to Raptors:** If raptor-nesting territories are observed, avoid disturbance when possible, during the nesting/fledgling period (5/15-8/15). Include in sale contract if sites are known prior to selling. Consult with Wildlife Biologist on specific buffers and disturbance period dates. Utilize this criterion specifically on Unit

68 for Alternative 2 - Pre-sale and harvest – all alternatives.

**Protect Cripple Horse Goshawk Nest:**

1. No management activities should occur within 0.5 miles of nest area (as mapped) between 3/1 and 8/30;
2. Route helicopter flights away from nest site and PFA as shown on territory maps (Project File).
3. Activities greater than ½ mile from the nest site should not occur until after July 15<sup>th</sup> or prior to April 1 (also see Criterion #2).

All criteria applicable to all alternatives for pre-sale, during and post-sale activities.

**Maintain Cavity-Nesting Habitat:** Where snag numbers are insufficient to meet snag levels by VRU (identified in the Snag Section at the 100% level) existing DF, WL and PP snags greater than 10" dbh and 10 feet in height will be marked and protected during timber harvest and site preparation as long as safety requirements are met. Merchantable trees (live or dead) will be reserved (Provisions CT2.3# and CT6.32#) C2.3# and C6.32# -- provisions were never intend for snags – intended for superior seed trees, research trees or high value wildlife trees (nest trees)). C6.32# - requires liquated damages (\$) for damage. Not advisable to use if snag levels are still not met. If felled for safety, they will be left on site. Maintain the largest snags first. Favor trees further than one tree length from the road prism or any external boundary - Pre-sale and harvest – all alternatives.

**Provide for Future Cavity-Nesting Habitat, Down Woody Habitat Recruitment, and Structural Diversity:**

KNF snag management protocol will be utilized to provide adequate snags for wildlife habitat. Units in MA 15 will be managed at the 40% level as prescribed in the KNFP. All other MAs will be managed at the 100% cavity habitat effectiveness level. Pre-sale – all alternatives.

**Leave Tree Protection:** Evenly distribute slash to protect leave trees. Pre-sale - all alternatives.

**Maintain Winter Range Integrity:** Restrict mechanized activities associated with logging and slashing off Roads 4885, 4886, 6271, 4916 (Dec. 1 – June 30); 6274, 4908A/B (Oct 15 – June 30); 4890, 5298 Sept 1 – May 30) to be consistent with the Road Closures as shown and applicable. Pre-sale, harvest and site prep – all alternatives. Winter logging will be required in Unit 1 in Alternative 2 and Units 1, 1A, 2B, 2C, 2D, 3A, 9, 10, 17, 28, 157, 158, 158A, 190, 194T, 169, COE1 and COE3 for Alternative 3.

**Provide for Wildlife Security:** Determine the time of road restrictions involved with timber sales in the pre-sale roundtable discussion. Implement new road restrictions after timber harvest where applicable and maintain existing restrictions to the public during all operations. Pre-sale, Post-sale – all alternatives. This criterion could vary by MA (e.g. summer range versus winter range) and could be influenced by other management boundaries such as Bears Outside Recovery Zone (BORZ). Generally, roads entering into or within these management boundaries will not be open to the public while treatment activities are occurring.

**Meet Standards and Guides of the Lynx Amendment for Management in Lynx Habitat:** including use of prescribed fire. Prior to activity - Alternative 3 as described in effects analysis, Chapter 3 of this document. If these are for alts, need to correct the PA.

**Meet ESA Requirements:** If critical habitat is identified during implementation of the proposed activities, special protection measures will be implemented by including provision CT6.251 in all applicable timber sale contract packages. This provision is mandatory. Contract prep and logging – all alternatives.

**Maintain Minimum/All Associated Old Growth Characteristics within Old Growth Character Stands (Green Et Al, 1992; USDA Forest Service, 1987a):** In the MA 13 portions of Units F1OG, F3OG, F11OG, F13OG, F14OG and F15OG no merchantable material will be removed. Outside MA 13 in these units, products (e.g. biomass) may be removed. Harvest Prescription, Sale Prep – Alternative 2. Ensure burning is planned to minimize impact on the large old tree component and subsequent risk of insect infestation. May want to defer burning until MPB population has subsided.

**Protect Specialized Wildlife Habitats:** Protect currently unknown (not mapped) specialized habitats (e.g. wetlands, fens, bogs, elk wallows, nests, etc.) found during timber sale preparation activities with appropriate buffers. When new sites are found consult wildlife biologist, fish biologist or hydrologist for direction. Pre-sale and during activities – all alternatives.

**Temporary Roads within the Tobacco BORZ:** Portion of the East reservoir Analysis area will be returned to contour immediately following harvest and slash activities (units) or within one active bear year (4/1 to 11/30), unless unforeseen circumstances (e.g. weather) prevents completion of the treatment units accessed by these temporary roads. Temporary roads needed for another work season will be closed with the appropriate restriction device (i.e. rods, gate, earth barrier, etc.).

**Heritage Resources:**

Heritage resource surveys were completed on all treatment units. The action alternatives were designed to protect known cultural sites, provide for protection of sites discovered during implementation, and protect treaty rights. These concerns will be addressed through ongoing consultation with tribal representatives. Appropriate Timber Sale Contract Provisions will be included in any timber sale contract. The appropriate provision specifies that the Forest Service may modify or cancel the contract to protect cultural resources, regardless of when they were identified.

Winter logging will be required for Unit 1 in Alternative 2, and Units 1 and 1A for Alternative 3.

**Scenic Resource:**

To meet visual quality objectives the following measures will be taken:

- Units 2, 3, 6, 16, 18 – High level of slash disposal along Highway 37.
- Units 7, 8, 59, 62, 80, 147, 148, 149, 150, 151 – 10 to 12 trees/acres leave trees in unit.
- Units 41, 81 – Leave tree islands (1 – 2 acres) left in unit.
- Unit 6 – 10 to 15 trees/acre leave trees in unit.

**U.S. Corps of Engineer Land:** The following BMP must be employed within the boundary of recorded archaeological sites and/or in areas where additional archaeological identification work cannot be completed prior to project implementation.

- A) Soil and duff moistures must be high enough to prevent thermal damage to artifacts that may be present in the lower duff layers or soil. Duff moistures of greater than 120% tend not to burn (Timmons, et al. 1996); consequently, the burn shall take place in the spring and/or late fall when conditions favor high duff moistures.
- B) Any stumps within recorded archaeological sites that will be burned must be protected by wetting or foaming prior to ignition.
- C) To keep excavation of soil to a minimum, control lines for prescribed burn operations must be located on existing roads, trails, topographical breaks, and any other natural barriers. Wet lines and/or foam lines are strongly recommended.
- D) Slash piling, for the purpose of burning, will not occur within recorded archaeological sites. Many areas on COE fee owned land considered high probability: Slash piling, for the purpose of burning, shall be avoided where feasible.
- E) Mechanical timber harvest must be done on frozen ground within recorded archaeological sites and high probability areas and in accordance with the following stipulations.
  - 1. Logging must be performed over frozen ground or over an accumulation of a minimum of one foot of compacted snow.
  - 2. A rubber-tired skidder shall be used.
  - 3. Logs will be limbed at the stump.
  - 4. Dispersed skidding.
  - 5. Logging landings shall be designated in areas outside of recorded archaeological sites and high probability areas. Landings will be clearly delineated by the COE archaeologist on the ground for the sale administrator and the contractor.
  - 6. Slash piling will not occur within any recorded archaeological sites or high probability areas. Appropriate areas must be clearly delineated by the COE archaeologist on the ground for the sale administrator and the contractor.

**Appendix 3: East Reservoir Project Monitoring Plan**

| RESOURCE          | OBJECTIVE   | TIMING  | METHODOLOGY  | RESPONSIBILITY                                   |
|-------------------|---|---|--|--|
| Forest Vegetation | Monitor silvicultural prescription implementation   | After project implementation  | Check all units following harvest to document existing condition, and recommend future stand treatment needs   | Silviculturist                                   |
| Forest Vegetation | Ensure reforestation success  | After project implementation  | Monitor all regeneration units for reforestation success.  | Silviculturist                                   |
| Soils             | Ensure compliance with R1 soil quality standards  | During the life of the timber sale  | Monitor harvest units for compliance with R1 soil quality standards as described in the KNF Plan Monitoring and Evaluation Report for Fiscal Year 2011 (Project File).   | Soil Specialist                                  |
| Fuels             | Ensure the fuel treatments are effective  | After project implementation  | Monitor the fuel treatments on a minimum of 10% of the units to ensure objectives are met.   | Fuels Specialist                                 |
| Botany            | Ensure viability for sensitive plants, particularly Taper-tipped onion                                  | Through the prescribed burning covered in project   | Monitor the effect of weed control and burning on rare plant populations. Monitor overall weed control efforts. Monitor status of sensitive plants within the project area during and after treatments.  | Botanist   |
| Wildlife #1       | Collect reserve tree and snag numbers   | During the marking of the regeneration units that require leave tree marking                          | Conduct a representative sample of units within each VRU (2 units in each VRU represented in the Analysis Area). This item will provide baseline numbers for monitoring items #2 and #3 below.<br>The timber marking crew will tally snag and reserve tree numbers during marking, and only in those regeneration harvest units with leave tree marking.   | Timber/Pre-Sale Marking Crew                     |
| Wildlife #2       | Monitor snag retention  | After harvest and site-preparation has occurred, but generally within five years from end of harvest. | Within those regeneration harvest units surveyed in #1(above) to determine if snag management strategies are meeting Forest Plan cavity habitat direction. Work will be completed concurrent with reforestation surveys.   | Silviculture Crew                                |
| Wildlife #3       | Monitor reserve tree retention within those regeneration harvest units surveyed in #1 (above).          | After harvest and site-preparation have occurred, but generally within five years from the harvest.   | Maintenance of reserve trees insures that future cavity-nesting habitat and down woody recruitment are available to help provide future denning, feeding, and nesting habitat. Work will be completed concurrent with reforestation surveys.   | Silviculture Crew                                |
| Wildlife #4       | Monitor the changes created by vegetative treatments on the attributes of old growth in treatment units | Pre-treatment surveys. Two post-treatment surveys, at one and five years.                             | Conduct pre- and post-treatment surveys to collect vegetation data on a representative sample of units. Data must, at a minimum, include snags, coarse woody debris, large trees, basal area, canopy closure, and structural layers (Green et al 1992). Conduct these surveys to collect vegetation data using the common stand exam process. Data collected by the Common Stand Exam has broader application both forest and region wide. | District Silviculturist, Fire Management Officer |
| Hydrology         | Ensure continued  | After project   | Resurvey all Rosgen Level II and KNF Level   | Hydrologist                                      |

| RESOURCE   | OBJECTIVE  | TIMING  | METHODOLOGY  | RESPONSIBILITY  |
|------------|--|---|--|---|
|            | stream function, stability, and high water quality   | implementation  | III Fish Habitat sites in East Reservoir analysis area.  |   |
| Hydrology  | Implementation and effectiveness of applicable BMPs.   | During and immediately following project activities.                                  | BMP inspection reports and/or Timber Sale Inspection Reports. Inspection reports will be completed as part of the annual district BMP effectiveness monitoring program.  | Timber Sale Administrator, Engineering Representative/COR, Hydrologist, IDT.    |
| Hydrology  | Ensure continued stream function, stability and high water quality.  | On going  | Monitor TSS and discharge at the USGS site.  | Hydrologist   |
| Hydrology  | Monitor protection and management of stream channels, riparian areas, and riparian habitat conservation areas during timber harvest and road reconstruction. | During implementation of activities that occur in or near riparian areas or wetlands. | This monitoring will occur as a fundamental component of timber sale administration.   | Timber Sale Administrator, Engineering Representative/COR, District Hydrologist |
| Hydrology  | Monitor success of revegetation efforts on disturbed sites.  | During initial seeding and the years following  | Field inspection of seeded sites at the close of the sale and 2 to 3 years after the sale. Additional seeding will then be done if the success rate is low.  | Timber Sale Administrator, District Hydrologist                                 |
| Hydrology  | Water quantity and quality monitoring.   | On going  | Field collection of stream flow, temperature, and suspended sediment samples, following USGS protocols   | District Hydrologist  |
| Hydrology  | Channel geometry monitoring to assess trends in channel condition  | Every three to five years for sites within the planning subunit                       | Repeated cross-section and channel geometry surveying in designated and monumented reaches   | District Hydrologist  |
| Weeds      | Noxious weed control   | On going  | Monitor/survey the project area for new invader weed species. Monitor weed population levels in treated areas, with particular emphasis on haul routes, stored roads, and landings. Pre- and post-activity surveys for areas scheduled for burning | Weed Specialist, Botanist   |
| Recreation | Ensure compliance with road/trail closures.  | On going  | Bi-annual monitoring of motorized vehicle closure devices and effective closure of ATV trespass trails.  | Recreation Specialist   |



## Appendix 4: Forest Plan Amendments

### East Reservoir Project-Specific Amendment #1

The Kootenai National Forest Plan, page III-64, in Management Area 15 (MA15) is modified for Recreation Standard #4 – meeting Visual Quality Objective of maximum modification.

Unit 40 (156 acres) is proposed as an over 40 acre regeneration harvest, but does not mimic the large historic patch size of 5,000 to 100,000 acres. However, it is placed adjacent to past harvests that are recovered, but are within the early-successional stage. By these units being blocked up with other early-successional stages, this larger block mimics historic conditions and will move into the future as a connected patch of interior forest (DEIS, Vegetation Report, p. 45, 46, 47). Even though the unit will be viewed from a SL3 (Significance Level 3 = very low) road, visually, due to large unit size, position of unit (face terrain), low number of leave trees (seedtree harvest, 93% of canopy removed) the proposed treatment would not meet KNFP standards of maximum modification for scenic resources (FEIS, Ch.3, pg. 367).

Unit 75 (36 acre shelterwood) sits next to Unit 188 (40 acre seedtree) creating an opening in excess of 40 acres. This treatment would be effective at reducing hazardous fuels, reducing crown fire potential, and improving fire suppression efficacy. Separately, these units meet QVOs but they are located adjacent to each other on the ground making a 76 acres seedtree/shelterwood harvest which removes 90% of the canopy. Due to large unit size, position of unit, low number of leave trees, the proposed treatment would not meet KNFP standards of maximum modification for scenic resources (FEIS, Ch.3, pg. 370, 372). This area is a very low visual significance level.

Unit 147 (93 acre seedtree), Unit 148 (77 acre seedtree), Unit 149 (65 acre seedtree) and Unit 150 (103 acre seedtree) are proposed for over 40 acre regeneration harvests. These units were designed to tie in with past regeneration harvests to simulate a fire that would have burned from the creek bottom to the ridge top due to continuous fuels and favorable topography. Treatments of this scale are more likely to disrupt large fire growth and spread and assist in the efficacy of suppression efforts when a fire occurs in these areas. Fire modeling indicates these areas are at risk of experiencing stand-replacing crown fire behavior if left untreated. With regard to wildlife, this strategy may result in openings that may not be fully utilized by elk as foraging areas, however, creating these openings reduces edge effect and fragmentation that would occur with greater number of openings of lesser acreage.

When considered in combination with existing adjacent openings on National Forest System lands these regeneration harvests will create six openings larger than 40 acres in size. Opening sizes will decrease over time as regeneration is established and grows. It was estimated that regeneration openings will be hydrologically recovered when they are approximately 25-30 years old. By the time a regeneration opening is this old, the conifer regeneration is tall enough to maintain enough canopy cover above the average winter snow depths to moderate rates of snow melt. The time required to realize hydrologic recovery is longer than the recovery needs of other resources and is therefore the most conservative estimate of recovery for openings caused by even-aged regeneration harvest.

Alternative 2 with Modifications will reduce tree canopy from fully stocked to a seedtree and/or shelterwood prescription in concert with exceeding 40 acre limitation as directed by NFMA. Treatment of these units supports purpose and need statement to re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change.

| UNIT # | HARVEST METHOD | TOTAL OPENING (acres) | BENEFITING RESOURCE  |
|--------|----------------|-----------------------|--|
| 40     | Seedtree       | 156                   | <b>Wildlife:</b> Reduce edge effect and fragmentation by blocking up treatment areas together versus 40 acre blocks.   |
| 75     | Shelterwood    | 36                    | <b>Wildlife:</b> Creating openings over 40 acres better approximates the patch size and pattern of habitat that would have been available under natural processes and reduce edge effect and fragmentation that would occur with a greater number of openings of lesser acreage.   |
| 147    | Seedtree       | 93                    | <b>Wildlife:</b> species associated with less edge effect and interior forest- creating openings over 40 acres better approximates the patch size and pattern of habitat that would have been available under natural processes and reduce edge effect and fragmentation that would occur with a greater number of openings of lesser acreage. |
| 148    | Seedtree       | 77                    |  |
| 149    | Seedtree       | 65                    |  |
| 150    | Seedtree       | 103                   | <b>Fuels:</b> Reduce fuels and provide a fuel break immediately adjacent to a major power transmission line. By locating the units adjacent to past treatments they will be more effective at disrupting large fire growth and be more conducive to fire control actions.  |

The Forest Plan states, “If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for the project”

This project-specific amendment allows achievement of the overall Forest Plan goal for MA15 which is timber production using various standard silviculture practices while providing for other resource values such as soil, air, water, wildlife, recreation and forage for domestic livestock (FP, Vol. 1, pg. III-64).

Project-specific amendments must comply with the National Environmental policy Act procedures. Compliance with these procedures and rationale for this project-specific amendment is contained in the East Reservoir Project DEIS, FEIS and draft ROD.

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### **Project Specific Amendment #2:**

The Kootenai National Forest Plan, page III-48, in Management Area 12 (MA12) is modified for Recreation Standard #2 – meeting Visual Quality Objective of maximum modification in areas of low visual significance, modification in areas of moderate visual significance, and partial retention in areas of high visual significance, unless infeasible when attempting to meet the goals of the management area.

Unit #362 (192 acres) cannot meet MA 12 visuals direction because it is planned for regeneration treatment (clearcut) to exceed 40 acres with the resulting visual quality objective (VQO) of unacceptably moderate (FEIS, Ch.3, pg. 373) due to reducing tree canopy from fully stocked to a clearcut.

Treatment of Unit 362 supports purpose and need statement to re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change.

When considered in combination with existing adjacent openings on National Forest System lands these regeneration harvests will create six openings larger than 40 acres in size. Opening sizes will decrease over time as regeneration is established and grows. It was estimated that regeneration openings will be hydrologically recovered when they are approximately 25-30 years old. By the time a regeneration opening is this old, the conifer regeneration is tall enough to maintain enough canopy cover above the average winter snow depths to moderate rates of snow melt. The time required to realize hydrologic recovery is longer than the recovery needs of other resources and is therefore the most conservative estimate of recovery for openings caused by even-aged regeneration harvest.

Alternative 2 with Modifications will reduce tree canopy from fully stocked to a seedtree and/or shelterwood prescription in concert with exceeding 40 acre limitation as directed by NFMA. Treatment of these units supports purpose and need statement to re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change.

| UNIT # | HARVEST METHOD | TOTAL OPENING (acres) | BENEFITING RESOURCE   |
|--------|----------------|-----------------------|---|
| 362    | Clearcut       | 192                   | Reduce fuels and provide a fuel break immediately adjacent to a major power transmission line. By locating the units adjacent to past treatments they will be more effective at disrupting large fire growth and be more conducive to fire control actions. |

The Forest Plan states, “If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for the project”

This project-specific amendment allows achievement of the overall Forest Plan goal for MA12 which is to maintain or enhance nonwinter big-game habitat and produce a programmed yield of timber (FP, Vol. 1, pg. III-48).

Project-specific amendments must comply with the National Environmental policy Act procedures. Compliance with these procedures and rationale for this project-specific amendment is contained in the East Reservoir Project DEIS, FEIS and draft ROD.

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### **Project Specific Amendment #3:**

The Kootenai National Forest Plan, page III-69 in Management Area 16 (MA16) is modified for Recreation Standard #4 – meeting Visual Quality Objective of modification.

Unit #73T (31 acres) and Unit 188 (40 acres) are adjacent to one-another. Together they cannot meet MA 16 visuals

direction because the planned for regeneration treatment (seedtree) combines to exceed 40 acres with the resulting visual quality objective (VQO) of maximum modification (FEIS, Ch.3, pgs. 370, 372) due to reducing tree canopy from fully stocked.

When considered in combination with existing adjacent openings on National Forest System lands these regeneration harvests will create six openings larger than 40 acres in size. Opening sizes will decrease over time as regeneration is established and grows. It was estimated that regeneration openings will be hydrologically recovered when they are approximately 25-30 years old. By the time a regeneration opening is this old, the conifer regeneration is tall enough to maintain enough canopy cover above the average winter snow depths to moderate rates of snow melt. The time required to realize hydrologic recovery is longer than the recovery needs of other resources and is therefore the most conservative estimate of recovery for openings caused by even-aged regeneration harvest.

Alternative 2 with Modifications will reduce tree canopy from fully stocked to a seedtree prescription in concert with exceeding 40 acre limitation as directed by NFMA. Treatment of these units supports purpose and need statement to re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change.

| UNIT # | HARVEST METHOD | TOTAL OPENING (acres) | BENEFITING RESOURCE  |
|--------|----------------|-----------------------|--|
| 73T    | Seedtree       | 31                    | <b>Wildlife:</b> Creating openings over 40 acres better approximates the patch size and pattern of habitat that would have been available under natural processes and reduce edge effect and fragmentation that would occur with a greater number of openings of lesser acreage. |
| 188    | Seedtree       | 40                    | <b>Wildlife:</b> Creating openings over 40 acres better approximates the patch size and pattern of habitat that would have been available under natural processes and reduce edge effect and fragmentation that would occur with a greater number of openings of lesser acreage. |

The Forest Plan states, "If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for the project"

This project-specific amendment allows achievement of the overall Forest Plan goal for MA16 which is to produce timber while providing for a pleasing view (FP, Vol. 1, pg. III-69).

Project-specific amendments must comply with the National Environmental policy Act procedures. Compliance with these procedures and rationale for this project-specific amendment is contained in the East Reservoir Project DEIS, FEIS and draft ROD.

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#### **Project Specific Amendment #4:**

The Kootenai National Forest Plan, page III-49, is modified for Wildlife and Fish Standard #7- to maintain movement corridors of at least two site distances (400 feet) between openings, and generally not to exceed openings over 40 acres.

Alternative 2 proposes one unit with acreage on MA12 land that result in openings that do not meet this standard. Unit 362 (clearcut) results in a 192 acre opening on MA12. Therefore, a site-specific KNFP amendment is necessary for this unit.

Treatment of Unit 362 supports the purpose and need statement to re-establish, restore and retain landscapes that are more resistant and resilient to disturbance (insect and disease infestations, fire) and uncertain environmental conditions such as climate change.

Alternative 2 with Modifications will reduce tree canopy from fully stocked to a seedtree and/or shelterwood prescription in concert with exceeding 40 acre limitation as directed by NFMA. While local movement of big game may be affected as a result of one 192 acre unit, one unit results in less edge effect than a number of units (in this case up to five units at 40 acres each) with forested corridors of 600 feet separating the units. Reducing edge effect is favorable for many resident species including goshawks, various woodpeckers, fisher, and once the 192 unit re-establishes hiding cover (approximately 15 years) a large block of uniform interior forest will result for those species more associated with interior forest habitats.

Amendment #4 amends the edge effect and movement corridors in MA 12. One 192 acre unit results in less edge effect than a number of units (in this case up to five units at 40 acres each) with forested corridors of 600 feet separating the units. Reducing edge effect is favorable for many resident species, such as fisher, brown creeper, goshawk and lynx, and once the 192 unit re-establishes hiding cover (approximately 15 years) a large block of uniform interior forest will result for those species more associated with interior forest habitats. Contrarily, edge creation is beneficial to many other hawk species such as red-tails and other birds including black-headed cowbirds for both foraging and nesting. Any edge creation will benefit these species in the 15 to 30 years immediately following harvest. However as time progresses, these larger patch sizes and subsequent interior forest development will become more beneficial to those interior species listed previously by creating areas for movement, nesting, rearing and foraging.

| UNIT # | HARVEST METHOD | TOTAL OPENING (acres) | BENEFITING RESOURCE   |
|--------|----------------|-----------------------|---|
| 362    | Clearcut       | 192                   | Reduce fuels and provide a fuel break immediately adjacent to a major power transmission line. By locating the units adjacent to past treatments they will be more effective at disrupting large fire growth and be more conducive to fire control actions. |

The Forest Plan states, "If it is determined during project design that the best way to meet the goals of the Forest Plan conflicts with a Forest Plan standard, the Forest Supervisor may approve an exception to that standard for the project"

This project-specific amendment allows achievement of the overall Forest Plan goal for MA12 which is to maintain or enhance nonwinter big-game habitat and produce a programmed yield of timber (FP, Vol. 1, pg. III-48).

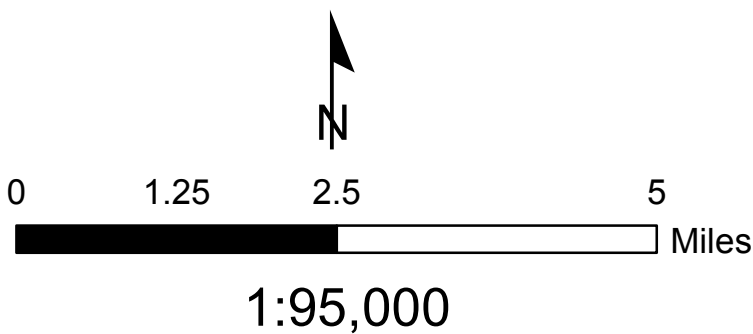
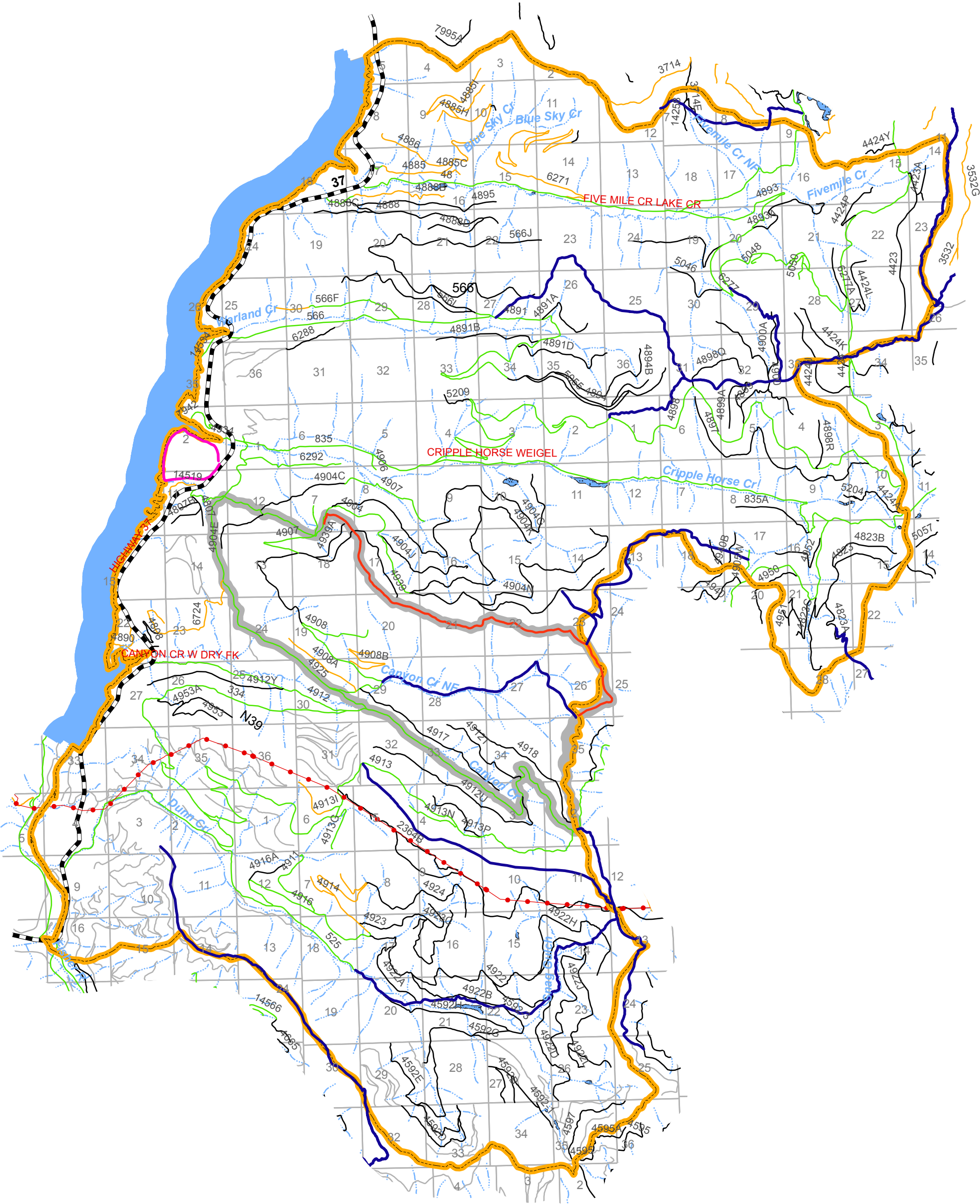
Project-specific amendments must comply with the National Environmental policy Act procedures. Compliance with these procedures and rationale for this project-specific amendment is contained in the East Reservoir Project DEIS, FEIS and draft ROD.







EAST RESERVOIR PROJECT  
ALTERNATIVE 2 WITH MODIFICATIONS  
MAP 2 - TRAILS



- Boundary Mountain Loop Trail
- Non-Motorized Trails
- Motorized Trails
- Cripple Horse Walking Trail
- East Reservoir Boundary
- Open Roads
- Seasonally Restricted Roads
- Yearlong Restricted Roads
- Non Forest Service Roads
- Powerline

EAST RESERVOIR PROJECT  
ALTERNATIVE 2 WITH MODIFICATIONS  
MAP 3 - PROPOSED ROAD CHANGES

